D H E C PROMOTE PROTECT PROSPER	**South Carolina Department of Health and Environmental Control** **Division of Procurement Services** **Invitation for Bid**	Solicitation No.: IFB-37166-11/5/09-EMW Date Issued: 10/6/09 Procurement Officer: E. Madison Winslow Phone No.: 803-898-3487 E-mail Address: winsloem@dhec.sc.gov Page No.: 1 of 134

DESCRIPTION: Corrective action for petroleum releases – UST Permit Number 07359, Columbia, SC

USING GOVERNMENTAL UNIT: **South Carolina Department of Health and Environmental Control**

The Term "Offer" Means Your "Bid" or "Proposal". Your offer must be submitted in a sealed package. Solicitation Number & Opening Date must appear on package exterior. See "Submitting Your Offer" provision.

SUBMIT YOUR SEALED OFFER TO EITHER OF THE FOLLOWING ADDRESSES:

MAILING ADDRESS:	PHYSICAL ADDRESS:
SC DHEC – Division of Procurement Services Bureau of Business Management 2600 Bull Street Columbia, S.C. 29201	SC DHEC – Division of Procurement Services Bureau of Business Management 2600 Bull Street, Room 1200 – Aycock Bldg. Columbia, S.C. 29201

SUBMIT OFFER BY (Opening Date/Time) November 5, 2009/2:30pm ET (See "Deadline For Submission Of Offer" provision)

QUESTIONS MUST BE RECEIVED BY: October 21, 2009/5:00 pm ET (See "Questions From Offerors" provision)

NUMBER OF COPIES TO BE SUBMITTED: One (1) original

CONFERENCE TYPE: N/A DATE & TIME: N/A (As appropriate, see "Conferences - Pre-Bid/Proposal" & "Site Visit" provisions)	LOCATION: N/A

AWARD & AMENDMENTS	Award will be posted on **November 12, 2009.** The award, this solicitation, any amendments, and any related notices will be posted at the following web address: http://www.scdhec.gov/procurement

You must submit a signed copy of this form with Your Offer. By submitting a bid or proposal, You agree to be bound by the terms of the Solicitation. You agree to hold Your Offer open for a minimum of thirty (30) calendar days after the Opening Date. (See "Signing Your Offer" and "Electronic Signature" provisions.)

NAME OF OFFEROR (full legal name of business submitting the offer)		Any award issued will be issued to, and the contract will be formed with, the entity identified as the Offeror. The entity named as the offeror must be a single and distinct legal entity. Do not use the name of a branch office or a division of a larger entity if the branch or division is not a separate legal entity, i.e., a separate corporation, partnership, sole proprietorship, etc.
AUTHORIZED SIGNATURE (Person must be authorized to submit binding offer to contract on behalf of Offeror.)		TAXPAYER IDENTIFICATION NO. (See "Taxpayer Identification Number" provision)
TITLE (business title of person signing above)		STATE VENDOR NO. (Register to Obtain S.C. Vendor No. at www.procurement.sc.gov)
PRINTED NAME (printed name of person signing above)	DATE SIGNED	STATE OF INCORPORATION (If you are a corporation, identify the state of incorporation.)

OFFEROR'S TYPE OF ENTITY: (Check one) (See "Signing Your Offer" provision.)

___ Sole Proprietorship ___ Partnership ___ Other _____
___ Corporate entity (not tax-exempt) ___ Corporation (tax-exempt) ___ Government entity (federal, state, or local)

PAGE TWO

(Return Page Two with Your Offer)

HOME OFFICE ADDRESS (Address for offeror's home office / principal place of business)	NOTICE ADDRESS (Address to which all procurement and contract related notices should be sent.) (See "Notice" clause) Area Code - Number - Extension Facsimile E-mail Address

PAYMENT ADDRESS (Address to which payments will be sent.) (See "Payment" clause)	ORDER ADDRESS (Address to which purchase orders will be sent) (See "Purchase Orders and "Contract Documents" clauses)
____Payment Address same as Home Office Address ____Payment Address same as Notice Address **(check only one)**	____Order Address same as Home Office Address ____Order Address same as Notice Address **(check only one)**

ACKNOWLEDGMENT OF AMENDMENTS

Offerors acknowledges receipt of amendments by indicating amendment number and its date of issue. (See "Amendments to Solicitation" Provision)

Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date

DISCOUNT FOR PROMPT PAYMENT (See "Discount for Prompt Payment" clause)	10 Calendar Days (%)	20 Calendar Days (%)	30 Calendar Days (%)	____Calendar Days (%)

PREFERENCES - SC RESIDENT VENDOR PREFERENCE (June 2005): Section 11-35-1524 provides a preference for offerors that qualify as a resident vendor. A resident vendor is an offeror that (a) is authorized to transact business within South Carolina, (b) maintains an office* in South Carolina, (c) either (1) maintains a minimum $10,000.00 representative inventory at the time of the solicitation, or (2) is a manufacturer which is headquartered and has at least a ten million dollar payroll in South Carolina, and the product is made or processed from raw materials into a finished end-product by such manufacturer or an affiliate (as defined in Section 1563 of the Internal Revenue Code) of such manufacturer, and (d) has paid all assessed taxes. If applicable, preference will be applied as required by law.

OFFERORS REQUESTING THIS PREFERENCE MUST INITIAL HERE. _____.

*ADDRESS AND PHONE OF IN-STATE OFFICE

____ In-State Office Address same as Home Office Address
____ In-State Office Address same as Notice Address
(check only one)

PREFERENCES - SC/US END-PRODUCT (June 2005): Section 11-35-1524 provides a preference to vendors offering South Carolina end-products or US end-products, if those products are made, manufactured, or grown in SC or the US, respectively. An end-product is the item identified for acquisition in this solicitation, including all component parts in final form and ready for the use intended. The terms made, manufactured, and grown are defined by Section 11-35-1524(B). By signing your offer and checking the appropriate space(s) provided and identified on the bid schedule, offeror certifies that the end-product(s) is either made, manufactured or grown in South Carolina, or other states of the United States, as applicable. Preference will be applied as required by law.

IF THIS PREFERENCE APPLIES TO THIS PROCUREMENT, PART VII (BIDDING SCHEDULE) WILL INCLUDE A PLACE TO CLAIM THE PREFERENCE. OFFERORS REQUESTING THIS PREFERENCE MUST CHECK THE APPROPRIATE SPACES ON THE BIDDING SCHEDULE.

I. SCOPE OF WORK

A. DEFINITIONS:

For the purposes of this contract the following terms and definitions shall apply:

1. Chemicals of Concern (CoC): Specific petroleum constituents that are identified for monitoring and corrective action.
2. Corrective Action Completion Time: The time in months, submitted by the Contractor, necessary to reduce CoC concentrations to below SSTLs, verify attainment of the goals, and remove and/or properly abandon assessment and corrective action equipment and components (wells, treatment lines, etc.).
3. Corrective Action Plan (CAP): A document outlining and detailing proposed corrective actions containing a timetable consistent with the Corrective Action Completion Time submitted by the contractor.
4. Corrective Action System Startup Date: The date on which the Contractor initiates full time treatment operations or initiates injection into or extraction from the subsurface.
5. Free-Phase Product (FPP): Petroleum lighter than water non-aqueous phase liquid (LNAPL) identified for monitoring and corrective action.
6. Liquidated Damages: Costs over and above the pre-approved amount that are incurred by the Department in order to complete the corrective action as specified in this document in the event of a breach of contract by the contractor resulting in termination of the contract.
7. Site Incentive Period: The period of time in months established by the SCDHEC during which the contractor must achieve the corrective action goals (see Contract Item II.A.9.c) in order to qualify for the Early Completion Incentive.

B. SOLICITATION STATEMENT

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (SCDHEC) is seeking services to perform active corrective action of a petroleum release at a regulated underground storage tank site in accordance with defined remediation goals. *The objective is to prevent significant further migration of FPP and CoC, to remove measurable (0.01') thicknesses of FPP, and to reduce the concentrations of CoC in the soil and groundwater to at or below site-specific target levels (SSTLs) established by SCDHEC.* All offerors must be South Carolina Certified Class I Site Rehabilitation Contractors.

C. SCHEDULE OF DELIVERABLES

The following table summarizes the deadlines for deliverables associated with this contract:

DELIVERABLE DUE	DEADLINE
Questions	By 5:00 p.m. ET, 10/21/09
Sealed Bids	By 2:30 p.m. ET, 11/5/09
Corrective Action Plan	30 days from date of award
Initial Monitoring Report	45 days from date of award
CAP Implementation	30 days from Notice to Proceed
System Start Up	15 days from receipt of Permit to Operate and CAP Notice to Proceed
Notify Project Manager of Gauging	At least 2 weeks prior to gauging event
Corrective Action System Evaluation Report	Quarterly from date of system start up
Abandon and/or Remove Assessment and Corrective Action Equipment and Components	Within 60 days from notice by SCDHEC

D. SITE-SPECIFIC INFORMATION

The scope of work defined in this solicitation is to be implemented at Former Columbia Maintenance Facility, 3736 Marsteller St., Columbia, SC, UST Permit #07359, for the release reported on December 30, 1991.

II. CONTRACTUAL REQUIREMENTS

A. GENERAL REQUIREMENTS

1. CONTRACT PERIOD: The contract will be effective from date of award until the corrective action is complete as described in this contract.

2. EQUAL OPPORTUNITY EMPLOYMENT: Contractor must agree to make positive efforts to employ women, other minorities, and minority-owned businesses.

3. AMENDMENTS: All amendments to this solicitation shall be in writing from the SCDHEC Procurement Officer indicated on page one of this solicitation. SCDHEC shall not be legally bound by any amendment, interpretation or settlement that is not in writing.

4. RESTRICTION . . . THE ONLY OFFICIAL CONTACT PERSON AT SCDHEC DURING THE SOLICITATION AND AWARD OF THIS CONTRACT IS THE PROCUREMENT OFFICER INDICATED ON PAGE 1 OF THIS SOLICITATION. OFFERORS ARE NOT TO CONTACT ANY OTHER SCDHEC PERSONNEL LOCATED OUTSIDE THE BUREAU OF BUSINESS MANAGEMENT.

5. AWARD: Award will be made to a South Carolina Certified UST Site Rehabilitation Contractor based on the Corrective Action Cost (Contract Item IV.B.3), method(s), and Corrective Action Completion Time for the site listed. For a bid to be considered responsive, the proposed implementation schedule and the proposed remediation technology(ies) or method(s) for active corrective action to achieve the remediation goals must be protective of public health and the environment and be eligible for permitting by SCDHEC. The total cost, methods, and time to complete the contract must be advantageous to the State of South Carolina.

   a. The Corrective Action Completion Time shall be determined by the offeror and entered into the Corrective Action Solicitation Response (Contract Item IV.B.)

      1) Time is of the essence in completing the site work to restore the aquifers and protect human health and the environment. Therefore, offerors are encouraged to strive for efficient remediation methods and to propose the shortest practical time for the completion of this site.

      2) Award of the contract, if made, will be made to the responsible and qualified offeror who submits a responsive bid with the lowest Corrective Action Cost. In the event that two or more bidders submit the lowest Corrective Action Cost, the award, if made, will be decided in accordance with the Tie Bids procedure in Section B. (6) of the Underground Storage Tank Environmental Remediation Procedures. SCDHEC reserves the right to request additional information to clarify the feasibility of the proposed remediation technology(ies) or method(s) for corrective action included in the bid.

3) The contractor shall enter the number of months in the space provided in the Corrective Action Solicitation Response.

6. REASONABLE COST: SCDHEC reserves the right to reject any and all bids that appear to be above customary and reasonable cost for the same scope of work in a similar geologic setting, that propose technologies that cannot be permitted in South Carolina, or that propose time frames for cleanup that are not protective of human health or the environment. SCDHEC reserves the right to request additional information to clarify the feasibility of the proposed remediation technology(ies) or method(s) for corrective action included in the bid.

7. SITE WORK VERIFICATION: The contractor will be required to treat the area of concern shown in the Appendix. Verification that interim corrective action goals have been achieved will be based upon gauging results from all wells and sampling points listed in the Appendix, and upon sampling results from SSTL wells and sampling point listed in the Appendix. Verification that final corrective action goals have been achieved will be based upon sampling results from all wells and sampling points listed in the Appendix, and additional verification wells to be installed at locations and depths designated by SCDHEC (See Contract Item III.B.10 for more details). It is understood that seasonal fluctuations in FPP thicknesses and CoC concentrations will occur over time. It is the intent of this corrective action to prevent further degradation of the aquifer(s) by continued migration of FPP and CoC into areas not previously impacted. If the corrective action allows FPP and CoC to migrate and impact areas beyond the area of concern, the Contractor will be responsible for completing assessment activities necessary to re-define the area of concern and for providing amendments to their Corrective Action Plan addressing the additional impacted area(s).

8. REPORTS: Deliver one electronic copy of each plan or report to: SCDHEC, Bureau of Land and Waste Management, UST Management Division, 2600 Bull Street, Columbia, SC 29201. The copy should be submitted on compact disc (CD) containing entire report in Personal Data Format (PDF) and all data tables in MS Excel or comparable format. A copy of each plan or report must be delivered to each party on the Distribution List included in the Appendix. The copies may be paper or electronic as agreed upon by the affected party and the Contractor. Based upon permitting and other requirements, additional copies of plans or reports may be required by the SCDHEC. The SCDHEC will notify the Contractor of the exact number of copies of each document to be submitted.

9. INVOICING: Invoices will be submitted to: SCDHEC, Bureau of Land and Waste Management, UST Management Division, ATTN: Financial Section, 2600 Bull Street, Columbia, SC 29201, using the SCDHEC Corrective Action (CA) Invoice form. The initial invoice must be received at the above address within four months of CAP approval or funds will be uncommitted as required by the Section 44-2-40(B) of the SUPERB Act. If funds are uncommitted, the submitted invoice will be held until funding is available. **Payment will only be made for achieving corrective action goals as specified below. No partial payments will be made once corrective action is initiated, except as outlined in Contract Item III.B.3.** Payment to the contractor will be on a pay-for-performance basis as follows:

   a. Payment of 40% of the total Corrective Action Cost will be made within 90 days following receipt of an invoice and documentation that the contractor has completed the Corrective Action System Startup. All corrective action activities must be as described in the CAP and are subject to the limitations of Section 44-2-40 of the SUPERB Act. The implementation

should be documented in the first corrective action system evaluation (CASE) report. The first CASE report must include the construction logs for all treatment/recovery wells installed in accordance with the CAP.

b. Payment of 40% of the total Corrective Action Cost will be made based on achieving interim FPP thickness reduction goals as verified in all wells and sampling points listed in the Appendix, and on achieving CoC concentration reduction goals as verified in the SSTL wells and SSTL sampling points listed in the Appendix. Payments will be made upon receipt of invoices and documentation that the contractor has achieved interim goals of FPP removal followed by 60, 90 and 100% reduction of total CoC concentration above the SSTLs **by the implementation of corrective action**. The FPP thicknesses, CoC concentrations, and SSTLs are listed in the Appendix.

1) The interim FPP removal goal will be achieved when the FPP thickness does not exceed 0.01' in all wells and sampling points listed in the Appendix, and at any point in the area of concern. Payment of 10% of the total Corrective Action Cost will be made upon verification that the interim FPP removal goal has been achieved. **Achievement of this interim goal must be confirmed by gauging conducted by SCDHEC. The gauging will be conducted a minimum of one month after the conclusion of FPP removal activities.**

2) The first interim concentration reduction goal will be achieved when 60% of the total CoC concentration above SSTLs in the SSTL wells and SSTL sampling points listed in the Appendix is removed. The following formula will be used to calculate the percent total concentration reduction: total concentration above SSTLs from initial sampling less total concentration above SSTLs from subsequent sampling divided by total concentration above SSTLs from initial sampling. Payment of 10% of the total Corrective Action Cost will be made upon confirmation by CASE report or upon verification (see Contract Item III.B.10 for the method of verification) that at least 60% of the total CoC concentration above SSTLs is removed.

The following is an example to demonstrate the CoC concentration reduction calculation:

Well		Benzene	Toluene	Ethylbenzene	Xylene	MTBE	Naphthalene	Conc>SSTL
MW-1	Initial [A]	7,500	4,000	2,000	15,000	3,000	1,000	[A]
	SSTL [B]	10	2,000	1,400	10,000	80	50	[B]
	Initial > SSTL [C]	7,490	2,000	600	5,000	2,920	950	18,960 [C]
	Subsequent [D]	3,000	1,000	900	13,000	2,000	5	[D]
	SSTL [E]	10	2,000	1,400	10,000	80	50	[E]
	Subsequent > SSTL [F]	2,990	0	0	3,000	1,920	0	7,910 [F]
MW-4	Initial [G]	150	400	50	250	300	25	[G]
	SSTL [H]	5	400	50	250	40	25	[H]
	Initial > SSTL [I]	145	0	0	0	260	0	405 [I]
	Subsequent [J]	100	100	1	1	100	1	[J]
	SSTL [K]	5	400	50	250	40	25	[K]

	Subsequent> SSTL[L]	95	0	0	0	60	0	155[L]
Totals	Initial > SSTL [M]	(sum of initial concentration above SSTL for all wells) (C+I)						19,365[M]
	Subsequent> SSTL[N]	(sum of subsequent concentration above SSTL for all wells) (F+L)						8,065[N]

Notes: If subsequent sampling indicates a CoC concentration at or below the SSTL and/or a CoC concentration at BDL but the reporting limit is at/or below the SSTL value for any constituent, the value for the concentration reduction will be 0 (no negative numbers). If subsequent sampling indicates a CoC concentration at BDL but the reporting limit is above the SSTL, the value for any constituent will be the analytical reporting limit.

$$\text{CoC Concentration Reduction} = \frac{(M-N)}{(M)} = \frac{(19{,}365-8{,}065)}{(19{,}365)} = 0.5835 * 100 = 58.35\%$$

2) The second interim concentration reduction goal will be achieved when 90% of the total CoC concentration above SSTLs in the SSTL wells and SSTL sampling points listed in the Appendix is removed. The formula outlined in Contract Item II.A.9.B.1 will be used. Payment of 10% of the total Corrective Action Cost will be made upon verification (see Contract Item III.B.10 for the method of verification) that at least 90% of the total CoC concentration above SSTLs has been removed. **Achievement of this interim goal must be confirmed by split sampling conducted with SCDHEC.**

3) The third interim concentration reduction goal will be achieved when 100% of the total CoC concentration above SSTLs in the SSTL wells and SSTL sampling points listed in the Appendix is removed. The formula outlined in Contract Item II.A.9.B.1 will be used. Payment of 10% of the total Corrective Action Cost will be made upon verification (see Contract Item III.B.10 for the method of verification) that 100% of the total CoC concentration above SSTLs. **Achievement of this interim goal must be confirmed by split sampling conducted with SCDHEC.**

c. The final 20% of the total Corrective Action Cost will be paid upon receipt of an invoice and verification that CoC concentrations do not exceed SSTLs in all wells and sampling points listed in the Appendix, in any verification wells, and at any point in the area of concern, and that all assessment and corrective action components (e.g., wells, trenches, etc.) have been removed from the site and/or properly abandoned. Verification that the corrective action goals have been achieved will be based upon sampling of all wells and sampling points listed in the Appendix and additional verification wells to be installed at locations and depths designated by SCDHEC (see Contract Item III.B.10 for more details).
SCDHEC will collect split or duplicate samples from wells and sampling points in the area of concern to confirm that corrective action goals have been achieved and maintained.

10. NOTIFICATION FOR FAILURE TO PERFORM: If the contractor fails during the course of this contract to make reasonable progress toward the cleanup goals in accordance with the Corrective Action Completion Time as included in the Corrective Action Plan, or fails to meet any requirement or specification of corrective action as outlined in this document without prior notification to SCDHEC of circumstances legitimately beyond their control, SCDHEC will, on the first occurrence, notify the contractor by certified letter and meet with them to establish a timetable and remedy for the deficiency (ies). If the contractor corrects the deficiency (ies)

within the agreed to period of time, the contract award will continue. If the contractor does not correct the deficiency (ies) within the agreed to period of time, the contractor will be in breach of contract and the contract award may be voided by SCDHEC. On the second occurrence, SCDHEC will notify the contractor by certified letter and meet with them to establish a timetable and remedy for the deficiency (ies). If the contractor corrects the deficiency (ies) within the agreed to period of time, the contract award will continue. If the contractor does not correct the deficiency (ies) within the agreed period of time, the contractor will be in breach of contract and the contract award may be voided by SCDHEC. **If the contractor fails on a third occasion during the course of this contract to meet any requirement or specification established in this document, the contractor will be in breach of contract and the contract award will be voided by SCDHEC.** SCDHEC will notify the contractor by certified letter that the contract award has been voided and will initiate appropriate actions in accordance with Contract Item II.A.12. **In the event that the contract award is voided due to a breach of contract as outlined above, no further payment of any invoices will be made and the contractor will incur a one-year suspension from bidding on any UST-related solicitations in South Carolina and may be subject to suspension or decertification in accordance with the SUPERB Site Rehabilitation and Fund Access Regulations, R.61-98.**

11. CANCELLATION: The accepted Corrective Action Cost will be final and will not be increased or cancelled for any reason (e.g., unanticipated iron fouling of a system, wells clogging because of biological activity or sediments, damage by lightning, increased subcontractor costs, loss of utilities, modification to the system to meet the remediation goals, etc.) with the exception of unforeseen subsurface conditions as determined solely at the discretion of SCDHEC or identification of additional CoC from a release occurring after the award of this contract that adversely impacts the corrective action. Contractor-owned items used on-site for the contract that are damaged or destroyed by common acts of nature, improper maintenance or handling, theft or vandalism will not be replaced or reimbursed by the SUPERB Account. **Payment will only be made for achieving the corrective action goals as specified in this document. No interim or partial payments will be made once corrective action is initiated, except as outlined in Contract Item III.B.3. Once corrective action has been initiated under this contract, in the event of a cancellation due to any of the conditions described in this Contract Item, final payment will be a percentage of the Corrective Action Cost equal to the actual percent reduction of the total CoC concentration based upon the last sampling results from all wells and sampling points listed in the Appendix less the amount previously paid.** The contractor cannot delay progress or suspend corrective action activities at the site based upon a claim of a suspected new petroleum release from the UST system. Unless directed otherwise by SCDHEC, the contractor must continue to perform corrective action activities under this contract during any period of time during which a new petroleum release from the UST system is being investigated. The contractor must clearly demonstrate sufficient evidence of the release in the form of analytical test results or other demonstrative evidence to SCDHEC. The determination that a new petroleum release from the UST system has occurred that post-dates the contract award, and that adversely impacts corrective action at the site, is the sole discretion of SCDHEC.

12. LIQUIDATED DAMAGES: In the event that the contract award is voided for cause as outlined in Contract Item II.A.10, the contractor will be required to pay liquidated damages equal to the costs that are incurred by SCDHEC over and above the Corrective Action Cost in order to complete the corrective action as specified in this contract. The amount of liquidated damages will be computed by subtracting the unpaid balance of the Corrective Action Cost from the completion cost of the corrective action as determined by re-bid of the corrective action contract.

The contractor will be notified by certified mail of the amount of liquidated damages within 15 business days following opening of the re-bid. The contractor will have 60 days from the date of notification to make payment of the amount. In the event that the contractor is unable or unwilling to pay the liquidated damages, SCDHEC will initiate decertification of the contractor in accordance with Section V.A.4. of the SUPERB Site Rehabilitation and Fund Access Regulations, R.61-98, and may initiate legal action to secure payment of the damages.

A. SPECIFIC REQUIREMENTS

1. CONTRACT SCOPE: This contract is for corrective action at one site in South Carolina.

2. INQUIRIES: Questions or requests for information must be submitted in writing and received by 5:00 P.M. on the date specified in Contract Item I.C. After this date, no further questions will be addressed. A written response will be provided to all requestors of the solicitation. The questions may be faxed to E. Madison Winslow in the SCDHEC Bureau of Business Management at (803) 898-3505.

3. PROVISION FOR EARLY COMPLETION INCENTIVE: SCDHEC will pay the contractor an incentive of 10% of the Corrective Action Cost for early completion, subject to the conditions set forth in this provision. Payment will be made if the corrective action goals have been met in accordance with the terms of this contract prior to the end of the Site Incentive Period, as established by SCDHEC, and verified in accordance with Contract Item III.B.10.

   The Site Incentive Period will commence on the Corrective Action System Startup Date. A month starts at 12:00 Midnight on the same day of the month as the Corrective Action System Startup Date and ends at Midnight preceding the same day of the following month. Months will be consecutively counted from the Corrective Action System Startup date. Following system startup, SCDHEC will provide the contractor notice in writing of the closing date of the Site Incentive Period.

   The Site Incentive Period will not be adjusted for any reason, cause or circumstance whatsoever, regardless of fault, save and except in the instance of a catastrophic occurrence such as an event (e.g., hurricane) that results in a declared state of emergency and that directly and substantially affects the contractor's operations and results in unavoidable delay of the corrective action. In the event of a catastrophic occurrence on a specific site, SCDHEC shall determine the number of months reasonably necessary and due solely to such catastrophic occurrence to extend the Site Incentive Period. Any amendments to the Site Incentive Period will be provided to the contractor in writing.

   The parties anticipate that routine delays may be caused by or arise from any number of events during the course of corrective action, including, but not limited to, work performed, work deleted, supplemental agreements, delays, disruptions, differing site conditions, utility conflicts, design changes or defects, extra work, right-of-way issues, permitting issues, actions of suppliers, subcontractors, or other contractors, actions by third parties, revision of the work scope by the contractor, weather, weekends, holidays, suspensions of the contractor's operations, or any other such events, forces or factors experienced in environmental work. Such delays or events, and their potential impacts on performance by the contractor are specifically contemplated and acknowledged by the contractor upon entering into this contract, and shall not affect the Site Incentive Period or incentives set forth in this contract item. Further, any and all costs or impacts whatsoever incurred by the contractor to complete corrective action within the Site Incentive

Period, whether successful or not, shall be the sole responsibility of the contractor in every instance.

The contractor shall have no rights under the contract to make any claim arising out of this incentive provision except as is expressly set forth in this provision.

The Site Incentive Period for Former Columbia Maintenance Facility, 3736 Marsteller St., Columbia, SC, UST Permit #07359 is 36 months.

4. SITE-SPECIFIC DETAILS: A brief technical summary, including location map and specifics of existing wells, is attached in the Appendix. The complete technical file will be available for review through the Freedom of Information (FOI) Office located at the Stern Building, 8911 Farrow Road, Columbia, SC. **Offerors are strongly encouraged to review the file(s) to ensure a complete understanding of corrective action requirements. The successful offeror will be responsible for all information in the technical file.** Appointment(s) to view the technical file may be scheduled on weekdays between the hours of 8:30 A.M. to 5:00 P.M. by calling the SCDHEC Freedom of Information Office at (803) 898-3882. **NOTE: FPP is present at this site. The application of corrective action technologies or natural fluctuations in the water table can mobilize FPP and cause possible appearance of FPP and/or elevated CoC concentrations in non-SSTL wells and sampling points.**

III. SPECIFICATIONS for CORRECTIVE ACTION

A. GENERAL SPECIFICATIONS

1. SUBMITTALS: All offerors must submit a completed Corrective Action Solicitation Response form (Contract Item IV). The response outlines in general terms the offeror's approach to achieve the corrective action goals.

2. MINIMUM REQUIREMENTS: Corrective action will be considered complete once the CoC concentrations are verified to be at or below SSTLs in the wells and sampling points listed in the Appendix and at any point in the area of concern, and all assessment and corrective action items are removed and/or abandoned. See Contract Item III.B.10 for the method of verification. Per R.61-98, all site rehabilitation activities associated with a UST release must be performed by a SCDHEC-certified Class I Site Rehabilitation Contractor. All corrective action plans and reports must be sealed by a Professional Engineer or Professional Geologist registered in the State of South Carolina. All engineering reports, drawings and plans must be sealed by a Professional Engineer registered in the State of South Carolina. All laboratory analysis for CoC must be performed by a SC-certified laboratory. All monitoring, verification, injection, or recovery wells must be installed and abandoned by a SC-certified well driller. The corrective action method(s) or technology (ies) will be designed to prevent vapors from entering onsite or adjacent structures. All applicable certification, training, permits, applications, and fees associated with well installation; injection, discharge, treatment, or transportation of groundwater, air, or soil; construction or operation of a corrective action system; and any other action requiring a permit are the responsibility of the contractor. Any required business or occupation licenses and occupational safety and health training (e.g., OSHA) as defined by the laws and regulations of the United States of America, the State of South Carolina, the county, or city are also the responsibility of the contractor. The terms and conditions of all applicable permits will be met. Any contaminated soil and construction debris, contaminated water, and FPP must be properly

transported and disposed of, or treated at, an approved facility with prior approval from SCDHEC. Any costs for utilities construction and service (electric, telephone, sewer, etc.) required by the corrective action are the responsibility of the contractor.

B. PERFORMANCE REQUIREMENTS

1. CORRECTIVE ACTION PLAN: The contractor must complete and submit a detailed Corrective Action Plan within 30 days from the date the Purchase Order is issued by the Bureau of Business Management. Copies of the CAP must be distributed in accordance with Contract Item II.A.8. The CAP must define the method(s) and technology(ies) proposed to achieve corrective action goals in a manner that is consistent with the Corrective Action Completion Time submitted by the contractor. **The corrective action method(s) or technology(ies) will be designed to prevent vapors from entering onsite or adjacent structures.** It must be shown, by use of scientific models, computations, or discussion, how CoC concentrations will be reduced by each method and technology proposed. Any assumptions used in a model will be listed or shown, as well as appropriate references. **Note that the use of monitoring well(s) for injection, extraction, or FPP recovery purposes is not allowed.** Accordingly, the CAP may propose installation of additional recovery, sparge, compliance, or injection wells. General construction details will be included (e.g., install four additional recovery wells, construct a compliance point, install four air injection wells, excavate 3,000 cubic yards of impacted soils, etc.) as well as details of well abandonment and component removal. A corrective action timetable including demobilization and site restoration (Contract Items III.B. 10 and III.B.11) will be provided in the CAP.

   SCDHEC will review the CAP and initiate a public notice period for a maximum of 30 days. The names and addresses of the owners of all impacted properties and all properties located adjacent to the impacted properties are provided in the Appendix. The contractor may be required to attend and provide input at one or more public meetings upon request by SCDHEC. Any CAP amendments and modifications resulting from the public notice must be submitted within 15 days of notification by SCDHEC. The CAP and any amendments or modifications must be sealed by a qualified Professional Geologist or Engineer registered in the State of South Carolina. The owner/operator and any other affected property owners will be consulted and will approve the location of the corrective action system. Any aboveground part of the system that is to remain on-site for longer than 30 contiguous days must be secured within a fenced area or building.

2. PERMIT APPLICATIONS: The contractor must complete and submit all applications for permits (injection, NPDES, BAQC modeling form, thermal treatment, construction, etc.) with the CAP. All submitted applications must comply with the requirements of the respective permitting program. Any required permit changes or corrections will be submitted within 15 days of notification by SCDHEC.

3. INITIAL MONITORING REPORT: Prior to Corrective Action System Startup, the contractor must submit to SCDHEC an initial monitoring report documenting FPP thicknesses, CoC concentrations, and potentiometric conditions in all wells and sampling points listed in the Appendix. The report will be due **within 45 days** after contract award. Copies of the initial monitoring report must be distributed in accordance with Section II.A.8.

   Naturally occurring conditions may cause CoC concentrations to increase or decrease. For the purposes of this contract, the total CoC concentration for all wells and sampling points listed in the Appendix may reasonably increase up to 150% or decrease as much as 50%. If the total CoC concentration in all wells and sampling points listed in the Appendix increases more than 150%

or decreases by more that 50% based on initial sampling, or if measurable FPP that has not been previously documented in any report is detected during the initial sampling event, the contractor may request in writing that the contract award be canceled. **If any of these conditions is identified during initial gauging, the contractor will notify SCDHEC within 2 days of identification and will submit written documentation within 5 days of notification.** The contractor will be reimbursed based on the following rate schedule:

Subcontractor costs*	Invoice + 15%
Personnel mobilization	$125.00
Equipment mobilization	$250.00
Groundwater sample collection	$35.00 per well
Gauging FPP	$30.00 per well
Contaminated water disposal	$90.00 per drum
CAP preparation and associated costs	$6,000.00

* Includes laboratory analysis, drilling, electrical, etc.

The rate schedule above does not apply in the event that the award is voided due to breach of contract in accordance with Contract Item II.A.10. If the contract is cancelled prior to Corrective Action System Startup due to any of the conditions described in this Contract Item, final payment will not exceed 40 percent of the Corrective Action Cost under any circumstance as no CoC reduction will have been accomplished by implementation of corrective action. If the corrective action system is started and treatment is performed, the contractor will be required to complete the contract unless conditions outlined in Contract Item II.A.11 are encountered.

4. CORRECTIVE ACTION PLAN IMPLEMENTATION: After CAP and all permit applications are reviewed and approved in accordance with the factors for determination set forth in R.61-92, Section 280.66, SCDHEC will issue a notice to proceed with CAP implementation. The contractor will implement the CAP within 30 days of receipt of the notice to proceed and any required permit to construct. If any problem with CAP implementation occurs, the contractor will notify SCDHEC within 24 hours of problem identification and will submit written documentation within 5 days of notification. Disruption to the normal business at the sites will be kept to a minimum. Upon completion of any required construction, SCDHEC will inspect the corrective action system and issue a permit to operate. The contractor will, at all times, keep the site free from waste materials and rubbish related to the corrective action. All contaminated soil and construction debris, contaminated water, and FPP generated on-site will be removed from the site promptly. Manifests documenting the proper disposal of the contaminated soil and construction debris, contaminated water, and FPP must be included in the appropriate report.

   Implementation of the CAP is not authorized until the contractor receives a notice to proceed from SCDHEC. If premature implementation occurs, the SCDHEC will not reimburse related costs incurred by the contractor from the SUPERB Account, and the Corrective Action Cost will be reduced by the amount of the incurred costs. If the SCDHEC agrees with early implementation to better protect human health in an emergency and provides approval in writing, early implementation without any reduction to the Corrective Action Cost will be authorized.

5. PROPERTY ACCESS: The contractor will gain access to the adjacent properties to sample wells and sampling points, and to install any corrective action components, as required. The Contractor will be responsible for corrective action components installed on adjacent properties. Costs to repair or replace components of the corrective action damaged due to the actions of adjacent property owners cannot be paid by the SUPERB Account.

6. SYSTEM START-UP: The Contractor will initiate Corrective Action System Startup within 15 days of receipt of the permit to operate, if required. Corrective action as defined by the CAP will begin upon startup. **NOTE: FPP is present at this site. The application of corrective action technologies or natural fluctuations in the water table can mobilize FPP and cause possible appearance of FPP and/or elevated CoC concentrations in non-SSTL wells and sampling points.**

7. REPORTING: The contractor must complete and submit a Corrective Action System Evaluation (CASE) report on a quarterly schedule. The CASE report will be distributed in accordance with Contract Item II.A.8. The first quarterly CASE report is due within 120 days of Corrective Action System Startup and must include the following items:

   a. A narrative portion that documents current site conditions, verification of system operation or CAP implementation, and system effectiveness in achieving the corrective action goals as outlined in the CAP. Any system down time and the associated reason(s) will be included in the report.

   b. Conclusions and recommendations based on the reported data.

   c. Groundwater laboratory analytical data for all wells and sampling points listed in the Appendix in the following format (additional parameters such as EDB and lead may be required)):

Analytical Data (µg/l)

Monitoring Well	Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Naphthalene
MW-1	7/15/97 10/15/97	145 140	200 190	146 140	1,000 900	170 50	47 165
MW-2	7/15/97 10/15/97	580 480	800 90	300 257	1,000 912	60 50	20 19

   d. Groundwater potentiometric data for all wells and sampling points listed in the Appendix in the following format:

Groundwater Data (feet)

Monitoring Well	Date	TOC Elevation	TOC to GW	TOC to FP	FP Thickness	GW Elevation
MW-1	7/15/97 10/15/97	98.0 98.0	17.54 17.90			80.46 80.10
MW-2	7/15/97 10/15/97	100.0 100.0	20.50 21.50	20.47 21.48	0.03 0.02	79.50 78.50

   e. A groundwater elevation contour map of the site based on current groundwater potentiometric data.

f. A CoC map based upon current groundwater laboratory analytical data. The groundwater data should be adjacent to the relevant well or gauging point using the following format (additional parameters such as EDB and lead may be required):

MW- (NUMBER)
Benzene (µg/l)
Toluene (µg/l)
Ethylbenzene (µg/l)
Xylenes (µg/l)
MTBE (µg/l)
Naphthalene (µg/l)

f. Calculation of CoC concentration reduction as outlined in Contract Item II.A.9.b.1).

g. A copy of the SCDHEC approval letter and manifests for any contaminated soil, contaminated water, and FPP removed from the site for treatment and disposal.

h. Any additional data required by permits (e.g., air analyses, wastewater effluent analyses and amounts, etc.). The data should be reported on a form or in a format specified in the permits, and attached to the CASE report as an addendum.

All wells and sampling points listed in the Appendix will be sampled on a quarterly schedule and for 2 years following Corrective Action System Startup. **This protocol must be followed regardless of the operational status of the corrective action system**. Thereafter, the number of wells and points sampled may be reduced and/or the reporting interval lengthened upon clear demonstration of CoC concentration reduction, unless restricted by permit requirements. The contractor must submit a written request for a change in the protocol to SCDHEC. **Approval for any reduction in the number of wells and points to be sampled, or for any lengthening of the reporting interval, is at the sole discretion of SCDHEC**. SCDHEC may require data to be reported on a form or in a specific format. The contractor will be provided with the proper report forms and format prior to Corrective Action System Startup. The contractor will be notified of any revisions to the report forms or format 90 days prior to the due date for the next CASE report.

8. SAMPLING: The contractor must collect water samples from all wells and sampling points listed in the Appendix on a quarterly schedule. **Do not sample wells and sampling points containing measurable (0.01') FPP.** If measurable FPP is present, the thickness of product and depth to groundwater must be recorded to the nearest 0.01'. For wells where the water level is within the screened interval, groundwater samples should be collected without purging. For wells where the water level is not within the screened interval, purging must be conducted and pH, temperature, dissolved oxygen, and specific conductance measurements recorded. With the exception of water supply wells, most wells will not require purging. Purging is considered complete once three well volumes have been removed or the pH, temperature, dissolved oxygen, and specific conductance have equilibrated, yielding two consecutive readings with all parameters within ±10% variance, whichever comes first. Sampling logs should note all field measurements, as well as the location and type of each sample submitted for laboratory analysis. Each groundwater sample will be collected in accordance with established QA/QC protocol and submitted to a certified laboratory for analysis. The samples must be analyzed for the parameters listed in the Appendix.

Additional samples (air, groundwater, effluent, soil) required by permits must be collected in

accordance with established QA/QC protocol and submitted to a certified laboratory for analysis. The samples will be analyzed for parameters stipulated in the permits. Sampling and analytical data for each sample (e.g., field sampling logs, chain of custody forms, certificates of analysis, and the lab certification number) will be included in the CASE report.

9. DISPOSAL: The contractor must properly dispose of all contaminated soil, contaminated water, and FPP generated during the corrective action. The owner/operator of the UST facility is considered to be the generator. Treatment and disposal must be conducted at SCDHEC-approved facility, and documented in the CASE reports.

10. QUALITY ASSURANCE & VERIFICATION: Once the third interim CoC concentration reduction goal (100%) has been maintained for a period of 30 days, the contractor must suspend corrective action and provide notification to SCDHEC. The corrective action suspension date will be considered the start of the two-quarter, post-corrective action verification period. The contractor will sample all wells and sampling points listed in the Appendix, and all verification wells on a quarterly schedule after the start of the verification period. **Do not sample wells and sampling points containing measurable (0.01') FPP.** If measurable FPP is present, the thickness of product and depth to groundwater must be recorded to the nearest 0.01'. The samples should be analyzed for the parameters listed in the Appendix, and also analyzed for following natural attenuation parameters:

Analyte	Analytical Method*	Reporting Limit (µg/l)
Dissolved Oxygen	SM4500-O G	500
Ferrous Iron	SM3500-Fe D	30
Methane	Kerr	1000
Nitrate	9056/9210	100
Sulfate	9038/9056	1000

*or EPA equivalent method that can achieve the same reporting level

If sampling results indicate that the third interim CoC concentration reduction goal has not been maintained, and/or CoC concentrations exceed SSTLs in the verification wells, corrective action must be resumed. SCDHEC may require the contractor to propose a revised corrective action strategy and timetable to achieve and maintain the goal. The strategy may require modification of the existing corrective action system. The post-corrective action period will be suspended and corrective action will continue until the third interim CoC concentration reduction goal is again achieved and maintained for a period of 30 days, and CoC concentrations in the verification wells remain below SSTLs for a period of 30 days. Once again, the contractor will suspend corrective action and a new post-verification period will begin. The aforementioned cycle of activity must be repeated until CoC concentrations remain at or below SSTLs in all wells and sampling points listed in the Appendix, and in all verification wells for 2 consecutive quarters.

SCDHEC may require installation of three verification wells during the post-corrective action verification period at designated locations and depths. Costs for the verification wells will be

considered part of the Corrective Action Cost. SSTLs for the verification wells will be provided by SCDHEC.

SCDHEC will collect split or duplicate samples from wells and sampling points in the area of concern to verify achievement of the second (90%) and third (100%) interim CoC concentration reduction goals, and may collect split or duplicate samples to verify achievement of the first (60%) interim CoC reduction goal. Split or duplicates samples will also be collected at the end of the two-quarter, post-corrective action verification period to confirm that corrective action goals have been maintained. In addition to the split samples, SCDHEC may provide up to three standards or prepared blanks for the contractor's laboratory to analyze. Analytical data sets from the contractor's laboratory and SCDHEC's laboratory will be compared. In the event of substantial variance (more than 15%) between the sets, a second split sampling event may be conducted with the contractor. If the variance persists, all data sets and associated quality assurance/quality control data will be provided to SCDHEC Laboratory Certification to determine the cause of the variance. The Director of the UST Management Division will solicit input from Laboratory Certification, the UST Section Manager, the UST Project Manager, and the contractor, and render a final decision as to which data set will be used for verification. The contractor will be provided a written record of the decision.

If the contractor anticipates that split sampling is warranted, SCDHEC must be allowed at least two weeks to schedule a mutually agreeable time for the split sampling event. Costs for transportation and analysis of split or duplicate samples collected by SCDHEC will be paid by SCDHEC.

11. DEMOBILIZATION: The contractor will disassemble and remove the corrective action system and associated equipment including utilities within 60 days of notification by SCDHEC that the corrective action goals have been achieved and maintained. Disruption to the owner/operator's or property owner's business must be kept to a minimum.

12. SITE RESTORATION: The contractor must properly abandon all assessment and corrective action components (monitoring, recovery, and/or injection wells (including pre-existing wells), borings, trenches, piping/utility runs, etc.) within 60 days of notification by the SCDHEC that the corrective action goals have been achieved. Abandonment will be in accordance with South Carolina Well Standards and Regulations R. 61-71 and accepted industry standards for abandonment of trenches and piping/utility runs. Disruption to the owner/operator's or property owner's business must be kept to a minimum. The contractor must provide SCDHEC with documentation of the abandonment and disposal of any remaining contaminated soil, contaminated groundwater, and FPP. **The contractor will restore the site to the condition that existed prior to assessment and corrective action (e.g. repaving, reseeding, etc.)**

13. COMPLETION NOTICE: Written notice must be provided to SCDHEC at least two weeks prior to completion of site restoration. This will allow SCDHEC and the contractor time to jointly inspect the site and, if necessary, compile a list of tasks to be finished. Task items may include, but are not limited to, well abandonment, pavement repair, debris removal, etc. **Site restoration will be complete once all the tasks are finished and/or the site passes a final inspection by SCDHEC.**

IV. BID AWARD

A. ACCEPTANCE and DELIVERY STATEMENT

In compliance with the solicitation and subject to all requirements thereof, the offeror agrees, if this bid is accepted within _____ days from date of opening, to initiate the corrective action as specified at the prices set forth for all sites as stated below. For the purpose of this submittal and acceptance of financial approval should it occur, I certify that this company understands the nature of the releases and the geologic conditions at this site as documented in the technical file and this solicitation. **Any quantities listed in the corrective action method(s) below are estimates and changes to those quantities or to the listed method(s) will not affect the bid price.** Additionally, I certify that this company understands that acceptance is based on total cost to treat the areas of concern.

Contractor (Print)	Certification Number
Authorized Representative (Print)	Signature

B. CORRECTIVE ACTION SOLICITATION RESPONSE

Please respond to the following questions for Former Columbia Maintenance Facility, 3736 Marsteller St., Columbia, SC, UST Permit #07359:

1. The corrective action method(s) or technology (ies) that will be proposed in the CAP will be:

2. The Corrective Action Completion Time, in months, to complete the corrective action from the date of corrective action system startup until corrective action goals are met will be _____ months.

3. The Corrective Action Cost, in whole dollars, regardless of the type, quantity, or duration of the permitted technology applied, to treat the area of concern shown in the Appendix such that the thickness of FPP does not exceed 0.01'at any point and CoC concentrations do not exceed SSTLs at any point; complete all associated monitoring and post-remediation verification; prepare all plans, reports, and correspondence; obtain and meet all terms and conditions of all required permits and licenses; design, install, monitor, operate, maintain, and when completed, properly abandon and/or remove all assessment and corrective action equipment and components; and complete other items outlined in this solicitation is: $_____

PLEASE READ THE FOLLOWING CAREFULLY PRIOR TO COMPLETING BID
INSTRUCTIONS TO BIDDERS

DISCUSSIONS AND NEGOTIATIONS: By submission of a bid, bidder agrees that during the period following issuance of this solicitation and prior to notification of intent or award of a contract, the bidder shall not discuss this procurement with any party except members of the DHEC Procurement Division or other parties designated in this solicitation. Bidder shall not discuss or attempt to negotiate with the using area or program any aspects of the procurement without prior approval of the DHEC Procurement Division Buyer responsible for the procurement. Infractions may result in rejection of the violator's bid.

1. Unless otherwise required herein, only one signed copy of the invitation to bid is required.
2. Bids "faxed" directly to the DHEC Procurement Office will not be accepted or considered for award.
3. Bids, amendments thereto or withdrawal request must be received by the time advertised for bid opening. It is the bidder's sole responsibility to insure that these documents are received by the person (or office) at the time indicated in this solicitation document. DHEC Underground Storage Tank Environmental Remediation Procedures shall govern any withdrawal request received after the time of the bid opening.
4. When specifications or descriptive papers are submitted with the bid submission, enter bidder's name thereon.
5. Submit your signed bid on this form. Show the bid number on the envelope as instructed. DHEC assumes no responsibility for unmarked or improperly marked envelopes. All envelopes received showing a bid number are placed directly under locked security until the date and time of opening. Do not include more than one bid invitation per envelope. If directing any other correspondence, address the envelope to the Procurement Officer but do not include the bid number on the envelope since it does not include your bid.
6. Bidders must clearly mark as "CONFIDENTIAL" each part of their bid which they consider to be proprietary information that could be **exempt from disclosure** under Section 30-4-40, Code of Laws of South Carolina 1976 (1986 Cum. Supp.; Freedom of Information Act). If any part is designated as confidential, there must be attached to that part an explanation of how this information fits within one or more categories listed in Section 30-4-40. DHEC reserves the right to determine whether this information should be exempt from disclosure and no legal action may be brought against the State, DHEC or its agents for its determination in this regard.
7. By submission of a bid, **you are guaranteeing** that all goods and services meet the requirements of this solicitation during the contract period.
8. **Tie bids** will be resolved as outlined in DHEC Underground Storage Tank Environmental Remediation Procedures.
9. **Do not include any taxes** that DHEC may be required to pay in the bid price. Upon submission of a bid by a state agency, the Procurement Officer will compute a 5% sales and use tax to the non-state agency bids when applicable (service and labor excluded) in determining the low bidder. This procedure conforms to the SC Tax Commission Sales and Use Tax Regulation 117-174-. 95.
10. **Correction of errors on this bid form:** All prices and notations should be printed in ink or typewritten. Errors should be crossed out, corrections entered and initialed by the person signing the bid. Erasures or use of typewriter correction fluid may be cause for rejection. No bid shall be altered or amended after the time specified for the bid opening.
11. **Ambiguous bids** that are uncertain as to terms, delivery, quantity, or compliance with this solicitation may be rejected or otherwise disregarded.
12. Any bidder desiring to exercise a grievance may do so under section IV of DHEC Underground Storage Tank Environmental Remediation Procedures. All correspondence should be directed to the Director of Procurement Services, Bureau of Business Management, 2600 Bull Street, Columbia, SC 29201.
13. **Failure to respond** to three consecutive bid notices may result in removal of bidder's name from the mailing list.

GENERAL PROVISIONS

14. DHEC reserves the right to reject any and all bids, and to cancel this solicitation.
15. **Unit prices** will govern over extended prices unless otherwise stated in this solicitation.
16. **Prohibition of Gratuities:** Amended section 8-13-420 of the 1976 Code of Laws of South Carolina States: "Whoever gives or offers to any public official or public employee any compensation, including a promise of future employment, to influence his action, vote, opinion or judgment as a public official or public employee or such public official solicits or accepts such compensation to influence his action, vote, opinion or judgment shall be subject to the punishment as provided by Section 16-9-210 and Section 16-9-220. The provisions of this section shall not apply to political contributions unless such contributions are conditioned upon the performance of specific actions of the person accepting such contribution nor shall they prohibit a parent, grand-parent or relative from making a gift to a child, grandchild, or other close relative for love and affection except as hereafter provided".
17. **Bidder's Qualification:** Bidders must, upon request of DHEC, furnish satisfactory evidence of their ability to furnish products or services in accordance with the terms and conditions of these specifications. DHEC reserves the right to make the final determination as to the bidder's ability to provide the products or services requested herein.

18. **Bidder's Responsibility:** Each bidder shall fully acquaint himself with conditions relating to the scope and restrictions attending the execution of the work under the conditions of this solicitation. It is expected that this will sometimes require on-site observation. The failure or omission of a bidder to acquaint himself with existing conditions shall in no way relieve him of any obligation with respect to this bid or to the subsequent contract.
19. **Amendments:** All amendments to and interpretations of this solicitation shall be in writing from the DHEC Procurement Office. Neither DHEC nor the Procurement Officer shall be legally bound by any amendment or interpretation that is not in writing.
20. **Award Criteria:** Award shall be as indicated herein to the lowest responsible and responsive bidder whose bid meets the requirements and criteria set forth in this solicitation. Award may take longer than fourteen days. A copy of the award notice should be posted on Procurement Services' website at: dhec.sc.gov/procurement.
21. **Rejection:** DHEC reserves the right to reject any bid that contains prices for individual items or services that are unreasonable when compared to the same or other bids if the rejection is in the best interest of the State.
22. **Competition:** This solicitation is intended to promote competition. If the language, specifications, terms and conditions, or any combination thereof restricts or limits the requirements in this solicitation to a single source, it shall be the responsibility of the interested bidders to notify the DHEC Procurement Office in writing so as to be received five days prior to the opening date. Notification may be "faxed" to the DHEC Procurement Office, (803) 898-3505. The solicitation may or may not be changed but a review of such notification will be made prior to award.
23. **Order of Precedence:** In the event of inconsistency between provisions of this solicitation, the inconsistency shall be resolved by giving precedence in the following order; (A) the bidding schedule, (B) the specifications, (C) general conditions, (D) special provisions or special conditions of the contract whether incorporated by reference or otherwise, and (E) instruction to bidders.

GENERAL CONDITIONS

24. **Contract Administration:** Questions or problems arising after award of this solicitation/contract shall be directed to the DHEC Procurement Office, 2600 Bull Street, Columbia, SC, 29201. Reference the solicitation and contract number.
25. **Default:** In case of default by the contractor, DHEC reserves the right to purchase any or all items in default in the open market, charging the contractor with any additional costs. The defaulting contractor shall not be considered a responsible bidder until the assessed charge has been satisfied.
26. **Save Harmless:** (This General Condition does not apply to solicitations for service requirements). The successful bidder shall indemnify and save harmless the State of South Carolina and DHEC and all its officers, agents and employees from all suits or claims of any character brought by reason of infringing on any patent, trade mark or copyright. The bidder shall have no liability to DHEC if such patent, trademark or copyright infringement or claim is based upon the bidder's use of material furnished to the bidder by the State.
27. **Publicity Releases:** By submission of a bid, the contractor agrees not to refer to award of this contract in commercial advertising in such a manner as to state or imply that the products or services provided are endorsed or preferred by DHEC or user.
28. **Tax Credit Availability:** Bidders interested in income tax credit availability by subcontracting with Certified Minority Firms should contact the Office of Minority Business Assistance, 1205 Pendleton Street, Columbia, SC, 29201. (803-734-0562)
29. **Affirmative Action:** The successful bidder will take affirmative action in complying with all Federal and State requirements concerning fair employment and employment of the handicapped, and concerning the treatment of all employees, without regard or discrimination by reason of race, color, religion, sex, national origin or physical handicap.
30. **Assignment:** Unless otherwise indicated in this solicitation, no contract or its provisions may be assigned, sublet, subcontracted, or transferred without the prior written consent of the DHEC Procurement Office.
31. **Termination:** Any contract resulting from this solicitation may be terminated by DHEC by providing a thirty-day advance notice in writing to the successful contractor.
32. **Non-Appropriations:** Any contract entered into by DHEC resulting from this solicitation shall be subject to cancellation without damages or further obligation when funds are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal period or appropriated year.
33. **Convenience:** In the event that this contract is terminated or canceled upon request and for the convenience of DHEC without the required thirty days advance written notification, then DHEC shall negotiate reasonable applicable termination costs.
34. **Cause:** Any contract resulting from this solicitation may be terminated without advance notice by DHEC for cause, default or negligence on the part of the successful contractor.
35. **S.C. Law Clause:** Upon award of a contract under this bid, the person/partnership, association or corporation to whom the award is made must comply with the laws of South Carolina which require such person or entity to be authorized and/or licensed to do business with this State. Notwithstanding the fact that applicable statutes may exempt or exclude the successful bidder from requirements that it be authorized and/or licensed to do business in this State. By submission of a

bid, the bidder agrees to subject himself to the jurisdiction and process of the courts of the State of South Carolina as to all matters and disputes arising or to arise under the contract and the performance thereof, including any questions as to the liability for taxes, licenses or fees levied by the State of South Carolina.

36. **Quality of Product:** (This general condition does not apply to solicitations for printing or service requirements.) Unless otherwise indicated in this solicitation, it is understood and agreed that any item offered or shipped as a result of this solicitation shall be new and in first class condition, that all containers shall be new and suitable for storage or shipment, and that prices include standard commercial packaging. If items that are other than new (i.e., remanufactured or refurbished) are desired to be bid, the bidder must obtain written permission to bid such items at least five days in advance of the bid opening date. Written permission must be obtained from the DHEC Procurement Office.

37. **Compliance with Federal Requirements:** S.C. State or Federal requirements that are more restrictive shall be followed in bidding, awarding and performance of this contract.

38. **Drug-Free Workplace:** Required by Section 44-107-10 (Drug Free Work-Place Act) of the SC Code of Laws, 1976, as amended. By submission of a bid, the bidder certifies that he will comply with all aspects of the Drug-Free Workplace Act and will not engage in the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance in the performance of this contract. This certification also applies to any individual or firm employed by the contractor.

39. **Confidentiality Policy:** The successful contractor agrees to abide by DHEC's policy of confidentiality which states in part that all information as to personal facts and circumstances given or made available to employees and/or contractors of DHEC in administration of programs shall be held confidential and shall not be divulged without the express written consent of the individual(s) to which it pertains.

40. **Item Substitution:** No substitution of items will be allowed on any purchase made from the awarded contract without written permission from the DHEC Procurement Office.

41. **Outside Contractor Program:** If applicable to scope of contract, contracted employees working on DHEC properties are entitled to information about hazardous chemicals present at DHEC; and DHEC's personnel are entitled to information about hazardous chemicals brought to the facilities by contractors. In order to assure continued compliance with the Hazard Communication Standards while contractors are on DHEC property and to control potential compliance obligations under the Superfund Amendments and Re-authorization Act, it is DHEC's policy to:

    A. Obtain written assurance that the contractor's employees have been trained to understand the hazards of the chemicals at DHEC and how to use appropriate personal protective equipment. All personal protective equipment and training required for the contractor's employees will be provided by the contractor at the contractor's expense. (This includes SC State General Services employees).

    B. Require the contractor to notify the DHEC Bureau of Business Management or the appropriate DHEC unit Director when introducing hazardous chemicals into DHEC work areas, which may harmfully expose DHEC employees. If the contractor is introducing such hazardous chemicals into any DHEC facility or onto DHEC property, the contractor shall provide the DHEC Division of Procurement Services or the DHEC unit Director copies of the Material Safety Data Sheets (MSDS) for those chemicals. The DHEC Division of Procurement Services or the DHEC unit Director should provide appropriate information to the DHEC employees before the contractor(s) enter any DHEC facility with chemicals.

    C. DHEC reserves the right to refuse to allow any contractor to bring any chemical onto DHEC property. The Department also reserves the right to refuse to allow any contractor to bring certain quantities of chemicals on DHEC property.

Appendix A

Distribution List for Plans and Reports

Responsible Party:

Mr. Peter Reinhart
SCDOT
PO Box 191
Columbia SC 29201

Property Owners:*

Silver Spur Properties LLC
PO Box 117
Columbia, SC 29203

Angelo McBride
Office of Business Opportunities
City of Columbia
PO Box 147
Columbia, SC 29217

Housing Authority
City of Columbia
1917 Harden St
Columbia, SC 29204

Eulalia Talley
1303 Elmore St
Columbia, SC 29203

*Subject to change

Table of Analytical Parameters

Analyte	Analytical Method*	Reporting Limit
BTEX*	8260B	5 µg/l
Naphthalene*	8260B	5 µg/l
MTBE*	8260B	5 µg/l
1,2-DCA*	8260B	5 µg/l
EDB	8011	0.02 µg/l
TAA	8260B	5 µg/l

* The Bureau of Land and Waste Management UST Management Division no longer accepts equivalent analytical methods for VOC analysis.

The above analyses are required for quarterly sampling.

Verification Wells

Three verification wells may be installed during the post-corrective action monitoring period at locations and depths designated by the UST Management Division. Costs for the well installation are considered part of the approved Corrective Action Cost. The Division will calculate SSTLs for the verification wells and provide the data to the Contractor in writing. During verification, all wells must be sampled for the parameters listed above as well as the following parameters:

Analyte	Analytical Method*	Reporting Limit
Dissolved Oxygen	SM4500-O G	500 µg/l
Ferrous Iron	SM3500-Fe D	30 µg/l
Methane	Kerr Method	1 mg/l
Nitrate	9056/9210	100 µg/l
Sulfate	9038/9056	1000 µg/l

UST # 07359, Former Columbia Maintenance Facility
Richland County

Table of Current CoC Concentrations in Groundwater

CoC concentrations requiring reduction in parts per billion (µg/l) based on May 26-29, 2009 and June 4-8, 2009 sampling and gauging:

Well	Free Product Thickness	Benzene	Toluene	Ethylbenz.	Xylene	Naphth.	MtBE	EDB	1,2-DCA	TAA
MW-1		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
MW-1R		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
MW-2R		**1400**	**8100**	**1700**	**8700**	**570**	**<500**	**7.5**	**<500**	**<10,000**
MW-3		**3200**	**14,000**	**1800**	**10,900**	**700**	**<500**	**15.7**	**<500**	**<10,000**
MW-4		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
MW-5		16	<5	<5	<5	<5	<5	<0.02	<5	**420**
MW-6		**640**	**270**	**550**	**820**	**250**	**<5**	**1.89**	**<5**	**1200**
MW-7		**1200**	**140**	**160**	**284**	**71**	**40**	**<0.02**	**<5**	**1800**
MW-8		<5	<5	<5	<5	<5	53	<0.02	<5	<100
MW-9		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
MW-10		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
MW-11		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
MW-12		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
MW-13		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
MW-14		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
MW-15		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
MW-16		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
MW-17		<5	<5	<5	<5	<5	<5	0.046	<5	<100
MW-19**	**0.01'**	**29,000**	**31,000**	**<2500**	**13,100**	**<2500**	**<2500**	**650**	**<2500**	**<50,000**
MW-20		**810**	**3800**	**410**	**3030**	**120**	**<5**	**4.54**	**<5**	**<100**
MW-21		**2300**	**3300**	**530**	**2680**	**<500**	**<500**	**11.5**	**<500**	**<10,000**
MW-22		**5300**	**17,000**	**<2500**	**12,000**	**<2500**	**<2500**	**63.8**	**<2500**	**<50,000**
MW-23		**72**	**580**	**290**	**1560**	**89**	**<5**	**0.219**	**<5**	**220**
MW-24**	**1.42'**	**8600**	**30,000**	**3400**	**18,600**	**<2500**	**<2500**	**133**	**<2500**	**<50,000**
MW-25		**1500**	**9100**	**1800**	**8400**	**<500**	**<500**	**3.71**	**<500**	**<10,000**
MW-26**	**0.51'**	**6500**	**6900**	**2200**	**7800**	**690**	**470**	**42.8**	**72**	**4200**
MW-27		**9300**	**11,000**	**1100**	**5600**	**350**	**<250**	**190**	**<250**	**<5000**
MW-28		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
MW-29		**2500**	**8400**	**1700**	**9000**	**1000**	**20**	**9.5**	**7.3**	**2700**
MW-30		**25,000**	**34,000**	**3000**	**16,200**	**<2500**	**<2500**	**852**	**<2500**	**<50000**
MW-31		**550**	**34**	**83**	**44**	**94**	**17**	**0.451**	**15**	**810**
MW-32		**8400**	**15,000**	**<2500**	**9900**	**<2500**	**<2500**	**15.7**	**<2500**	**<50,000**
MW-33		**950**	**830**	**130**	**380**	**50**	**47**	**9.92**	**35**	**1400**
MW-34		**1900**	**1500**	**280**	**860**	**150**	**25**	**<0.02**	**<5**	**1300**
MW-35		**5200**	**20,000**	**2800**	**13,800**	**760**	**<500**	**94.4**	**<500**	**<10,000**
MW-36**	**2.25'**	**19,000**	**41,000**	**3300**	**18,500**	**<2500**	**<2500**	**318**	**<2500**	**<50,000**
MW-37		**7500**	**21,000**	**2700**	**14,300**	**<2500**	**<2500**	**103**	**<2500**	**<50,000**
MW-38		**3800**	**1800**	**1600**	**3240**	**600**	**92**	**4.73**	**16**	**5000**
MW-39		**68**	**14**	**23**	**33**	**<5**	**<5**	**<0.02**	**<5**	**280**
MW-40		**11,000**	**18,000**	**2300**	**12,700**	**690**	**<500**	**171**	**<500**	**<10,000**
MW-41		**380**	**26**	**14**	**62**	**8.8**	**6.6**	**0.75**	**14**	**970**
MW-42		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
MW-43		**6100**	**12,000**	**1600**	**6900**	**570**	**49**	**37.2**	**28**	**5000**
MW-44		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
MW-45		**150**	**120**	**170**	**570**	**120**	**<5**	**0.64**	**<5**	**120**
MW-46		**3000**	**4400**	**400**	**2290**	**60**	**11**	**36.1**	**55**	**3200**
MW-47		**200**	**280**	**180**	**470**	**77**	**<5**	**0.228**	**<5**	**<100**
MW-48		**190**	**<5**	**<5**	**<5**	**16**	**<5**	**<0.02**	**<5**	**430**
MW-49		<5	<5	<5	<5	16	<5	<0.02	<5	<100
DW-1		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
DW-2		**15**	**97**	**34**	**234**	**34**	**<5**	**0.029**	**<5**	**<100**
DW-3		<5	7	<5	9.6	8	<5	<0.02	<5	<100
DW-4		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
DW-5		**8.9**	**48**	**34**	**163**	**1400**	**<5**	**0.038**	**<5**	**<100**
DW-6		<5	<5	<5	<5	<5	<5	<0.02	<5	<100
SW-1		16	<5	<5	<5	<5	<5	<0.02	<5	<100

* CoC concentations may vary due to seasonal fluctuations in the groundwater.
** Initial CoC concentrations will be set at the levels detected after the removal of Free Phase Product

Table of SSTLs

Site-specific target levels (SSTLs) for interim payment under this solicitation in parts per billion (µg/l).

Well	Benzene	Toluene	Ethylbenzene	Xylene	Naphth.	MtBE	EDB	1,2-DCA	TAA
MW-2R	95	8100*	1700*	8700*	570*	500**	5.93	113	2783
MW-3	162	14,000*	1800*	10,900*	700*	500**	14	199	3935
MW-6	33	270*	550*	820*	190	5**	1.09	5**	1200*
MW-7	19	140*	160*	284*	71*	40*	0.02**	5**	868
MW-19	81	21,576	2500**	13,100*	497	437	4.59	96	2504
MW-20	88	3800*	410*	3030*	120*	5**	4.54*	5**	100**
MW-21	75	3300*	530**	2680*	454	407	4.01	88	2382
MW-22	75	17,000*	2500**	12,000*	454	407	4.01	88	2382
MW-23	72*	580*	290*	1560*	89*	5**	0.219	5**	220*
MW-24	107	29,395	3400*	18,600*	671	557	7.21	129	3015
MW-25	122	9100*	1800*	8400*	500**	500**	3.71*	148	3284
MW-26	122	6900*	2200*	7800*	690*	470*	8.90	72*	3284
MW-27	75	11,000*	1100*	5600*	350*	250**	4.01	88	2382
MW-29	156	8400*	1700*	9000*	1000*	20*	9.5*	7.3*	2700*
MW-30	122	33,959	3000*	16,200*	773	624	8.9	148	3284
MW-31	50	34*	83*	44*	94*	17*	0.451*	15*	810*
MW-32	92	15,000*	2500**	9900*	566	486	5.58	109	2715
MW-33	54	830*	130*	380*	50*	47*	2.37	35*	1400*
MW-34	36	1500*	280*	860*	150*	25*	0.02**	5**	1300*
MW-35	162	20,000*	2800*	13,800*	760*	500**	14	199	3935
MW-36	64	16,507	2682	18,500*	383	354	3.11	74	2126
MW-37	42	10,501	2146	14,300*	246	249	1.6	48	1597
MW-38	28	1800*	1600*	3240*	159	92	0.83	16	1184
MW-39	68*	14*	23*	33*	5**	5**	0.02**	5**	280*
MW-40	133	18,000*	2300*	12,700*	690*	500**	10.2	162	3468
MW-41	88	26*	14*	62*	8.8*	6.6*	0.75*	14*	970*
MW-43	19	4331	1394	6900*	104	49*	0.44	20	868
MW-45	50	120*	170*	570*	120*	5**	0.64*	5**	120*
MW-46	151	4400*	400*	2290*	60*	11*	12.4	55*	3200*
MW-47	122	280*	180*	470*	77*	5**	0.228*	5**	100**
MW-48	95	5**	5**	5**	16*	5**	0.02**	5**	430*
DW-2	15*	97*	34*	234*	34*	5**	0.029*	5**	100**
DW-5	8.9*	48*	34*	163*	159	5**	0.038*	5**	100**
Total	2681.9	261,013	40,415	203,125	10,810.8	7093.6	133.4	1978.3	59,026

* Laboratory analysis is less than calculated SSTL. SSTL is set equal to laboratory analysis.

** Laboratory analysis is below detection limit. SSTL is set equal to detection limit.

The following pages include information from:

Tier II Report Received 07/29/2009
Tier I Report Received 09/26/2000
Tier II Report Received 09/05/2002
Various Groundwater Sampling Events 2000-2006
Assessment Report Received 02/22/2007
Assessment Report Received 05/20/2008
Assessment Report Received 12/18/2008
Geophysical Report from the Tier II Report Received 07/29/2009

The complete technical file will be available for review through the Freedom of Information (FOI) Office located at the Stern Building, 8911 Farrow Road, Columbia, SC. **Offerors are strongly encouraged to review the file(s) to ensure a complete understanding of corrective action requirements. The successful offeror will be responsible for all information in the technical file.** Appointment(s) to view the technical file may be scheduled on weekdays between the hours of 8:30 A.M. to 5:00 P.M. by calling the SCDHEC Freedom of Information Office at (803) 898-3882.

TABLE 1

Former SCDOT Columbia Maintenance Facility **SITE ID# 07359**

3736 Marsteller Drive, Columbia, SC **GS2 Project # 09-3114-1**

SOIL FIELD SCREENING SUMMARY

SAMPLE ID	TOTAL DEPTH	PID RESULTS (PPM)						
		4'	8'	12'	16'	20'	24'	28'
TMW-1	20'	1075	1275	1300	1330	1340		
TMW-2	18'	1290	1340	1320	N/A	900 (18')		
TMW-3	20'	1380	1345	1375	1015	678		
TMW-4	20'	1317	1298	1343	1258	1233		
TMW-5	20'	27	50	100	470	320		
TMW6	22'	20	15	25	40	25	30 (22')	
TMW-7	22'	20	12	25	20	30	30 (22')	
TMW-8	22'	60	8	15	83	160	100 (22')	
TMW-9	20'	BDL	BDL	10	24	4		
TMW-10	20'	3	13	12	45	94		
TMW-11	20'	16	70	152	12	120		
TMW-12	20'	BDL	0.1	0.8	3	3		
TMW-13	21'	472	455	65	1432	455		
TMW-14	20'	BDL	1	73	6	3		
TMW-15	22'	1200	170	25	6	16	330 (22')	
TMW-16	20'	11	20	25	800	350		
TMW-17	20'	7	11	40	960	1500		
TMW-18	20'	100	72	45	4	10		
TMW-19	20'	1800	49	21	30	52		

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Table 2

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, SC

SCDHEC Site ID # 07359
GS2 PROJECT # 09-3114-1

SUMMARY OF SOIL ANALYTICAL RESULTS

Sample ID		MW-28	MW-29	MW-30	MW-31	MW-32	MW-33	MW-34	MW-35	MW-36
Sample Date	RBSL	5/1/09	5/1/09	5/1/09	5/1/09	5/1/09	5/5/09	5/5/09	5/5/09	5/1/09
Depth (Feet)	mg/Kg	(5-10 ft.)	(5-10 ft.)	(0-5 ft.)	(5-10 ft.)	(5-10 ft.)	(5-10ft.)	(5-10ft.)	(0-5ft.)	(0-5 ft.)
Benzene (mg/Kg)	0.007	<0.0034	<0.0032	0.29	<0.0028	<0.0032	<0.0031	<0.0032	<0.0031	<0.150
Toluene (mg/Kg)	1.45	<0.0034	<0.0032	2.9	0.0068	0.0033	<0.0031	<0.0032	0.0033	1.2
Ethylbenzene (mg/Kg)	1.15	<0.0034	<0.0032	0.94	0.0077	<0.0032	<0.0031	<0.0032	2	0.54
Total Xylenes (mg/Kg)	14.5	<0.0034	<0.0032	3.1	0.053	<0.0032	<0.0031	<0.0032	0.0275	3.1
Naphthalene (mg/Kg)	0.036	<0.0034	<0.0032	0.47	0.013	0.004	<0.0031	<0.0032	0.034	5.0
Benzo(a) anthracene	0.066	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(b) flouranthene	0.066	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(k) flouranthene	0.066	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chrysene	0.066	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dibenz(a,h) anthracene	0.066	NT	NT	NT	NT	NT	NT	NT	NT	NT

Notes:
1) Results reported in milligrams per kilogram = mg/Kg.
2) NT = Not Tested
3) BDL = Below Practical Detection Limits

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Table 2

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, SC

SCDHEC Site ID # 07359
GS2 PROJECT # 09-3114-1

SUMMARY OF SOIL ANALYTICAL RESULTS

Sample ID		MW-37	MW-38	MW-39	MW-40	MW-41	MW-42	MW-43	MW-44	MW-45
Sample Date	RBSL	5/1/09	5/1/09	5/5/09	5/1/09	5/1/09	5/1/09	5/18/09	5/18/09	5/1/09
Depth (Feet)	mg/Kg	(5-10 ft.)	(5-10 ft.)	5-10ft.)	(0-5 ft.)	(5-10 ft.)	(5-10 ft.)	(5-10 ft.)	(0-5 ft.)	(5-10 ft.)
Benzene (mg/Kg)	0.007	<0.0035	<2.6	<0.038	<0.0031	**3.8**	<0.0032	<0.0038	<0.0028	<0.0027
Toluene (mg/Kg)	1.45	<0.0035	<2.6	<0.038	0.026	**30**	<0.0032	<0.0038	<0.0028	<0.0027
Ethylbenzene (mg/Kg)	1.15	<0.0035	**3.1**	<0.038	0.014	**9.8**	<0.0032	<0.0038	<0.0028	<0.0027
Total Xylenes (mg/Kg)	14.5	0.0073	**21.3**	<0.038	0.075	**53**	<0.0032	<0.0038	<0.0028	<0.0027
Naphthalene (mg/Kg)	0.036	0.0096	**8.8**	<0.038	0.0072	**7.3**	<0.0032	<0.0038	<0.0028	<0.0027
Benzo(a) anthracene	0.066	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(b) flouranthene	0.066	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(k) flouranthene	0.066	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chrysene	0.066	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dibenz(a,h) anthracene	0.066	NT	NT	NT	NT	NT	NT	NT	NT	NT

Notes:
1) Results reported in milligrams per kilogram = mg/Kg.
2) NT = Not Tested
3) BDL = Below Practical Detection Limits

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

Table 2

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, SC

SCDHEC Site ID # 07359
GS2 PROJECT # 09-3114-1

SUMMARY OF SOIL ANALYTICAL RESULTS

Sample ID		MW-46	MW-47	MW-48	MW-49					
Sample Date	RBSL	5/5/09	5/28/09	5/1/09	5/1/09					
Depth (Feet)	mg/Kg	(5-10ft.)	(5-10ft.)	(5-10 ft.)	(5-10 ft.)					
Benzene (mg/Kg)	0.007	<0.0031	<0.0030	<0.0036	<0.0031					
Toluene (mg/Kg)	1.45	<0.0031	0.0035	<0.0036	0.0084					
Ethylbenzene (mg/Kg)	1.15	0.0039	<0.0030	<0.0036	0.036					
Total Xylenes (mg/Kg)	14.5	<0.0031	<0.0073	<0.0036	0.098					
Naphthalene (mg/Kg)	0.036	<0.0031	<0.0030	<0.0036	0.035					
Benzo(a) anthracene	0.066	NT	NT	NT	NT					
Benzo(b) flouranthene	0.066	NT	NT	NT	NT					
Benzo(k) flouranthene	0.066	NT	NT	NT	NT					
Chrysene	0.066	NT	NT	NT	NT					
Dibenz(a,h) anthracene	0.066	NT	NT	NT	NT					

Notes:
1) Results reported in milligrams per kilogram = mg/Kg.
2) NT = Not Tested
3) BDL = Below Practical Detection Limits

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TABLE 3

Former SCDOT Columbia Maintenance Facility **SITE ID# 07359**
3736 Marsteller Drive, Columbia, SC **GS2 Project# 09-3114-1**

GROUNDWATER FIELD SCREENING SUMMARY

Sample ID	Depth (Feet)	Total Depth (Feet)	Boring Method	PID Reading	Comments
TMW-1	20	20	MacroCore	30	1' of product
TMW-2	18	38	MacroCore	650	3' of product
TMW-3	20	58	MacroCore	900	strong PT odor
TMW-4	20	78	MacroCore	200	
TMW-5	20	98	MacroCore	175	
TMW-6	22	120	MacroCore	90	
TMW-7	22	142	MacroCore	25	
TMW-8	22	164	MacroCore	7	
TMW-9	20	184	MacroCore	15	
TMW-10	20	204	MacroCore	10	
TMW-11	20	224	MacroCore	200	
TMW-12	20	244	MacroCore	BDL	
TMW-13	20	264	MacroCore	350	strong PT odor
TMW-14	21	285	MacroCore	10	
TMW-15	20	305	MacroCore	1300	product; strong PT odor
TMW-16	22	327	MacroCore	600	product; strong PT odor
TMW-17	20	347	MacroCore	180	strong PT odor
TMW-18	20	367	MacroCore	5	
TMW-19	20	387	MacroCore	BDL	
GW-1	35	422	GW Sampler	5	
GW-2	45	467	GW Sampler	50	
GW-3	55	522	GW Sampler	30	
GW-4	61	583	GW Sampler	75	Probe Refusal
GW-5	40	623	GW Sampler	25	
GW-6	50	673	GW Sampler	N/A	Probe Refusal/ Dry Hole

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TABLE 4

Former SCDOT Columbia Maintenance Facility **Site ID # 07359**
3736 Marsteller Drive, Columbia, SC **GS2 Project # 09-3114-1**

GROUNDWATER ANALYTICAL SCREENING SUMMARY

SAMPLE ID	Sample Date	Benzene 5 µg/L	Toluene 1000 µg/L	Ethylbenzene 700 µg/L	Total Xylene 10000 µg/L	Total BTEX µg/L	NAPTH 25 µg/L	MTBE 40 µg/L
TMW-12	4/17	16	BDL	BDL	BDL	16	BDL	301.8
TMW-14	4/17	BDL	BDL	BDL	BDL	BDL	110	308.5
TMW-17	4/17	7600	31000	3000	14800	28500	1300	613.8
TMW-18	4/17	BDL	BDL	BDL	BDL	BDL	BDL	311
TMW-19	4/17	10	39	7.8	42	97.8	BDL	308.5

NOTES:
1) BDL= Below Practical Reporting Limit
2) Total Xylene= m,p- Xylene + o- Xylene
3) (µg/L)= micrograms/Liter
4) Total BTEX = Benzene+ Toluene+ Ethylbenzene+ Xylene
5) (µg/L)=RBSL (RISK BASED SCREENING LEVEL)

FORMER SCDOT COLUMBIA MAINTENANCE FACILITY
GS2 PROJECT # 09-3114-1

TABLE 5
Groundwater Sampling Log

SITE ID # 07359
Sampled by: L. Lee, D. Kiem

									Initial				1st Volume				2nd Volume				Final				
Well ID	Date	Time	Depth to Product	Depth to Water (Feet)	Product Thickness	Total Depth (Feet)	Ferrous Iron (mg/L)	Dissolved CO2 (mg/L)	Temp	pH	Cond	DO	Temp	pH	Cond	DO	Temp	pH	Cond	DO	Temp	pH	Cond	DO	Total Purge Volume
MW-1	5/27	1305		15.03				35	23.0	5.36	100.1	1.41													
MW-1R	5/27	1250		15.71				16.25	24.0	5.26	75.1	1.67													
MW-2	ABD	ABD		ABD																					
MW-2R	5/29	1235		14.51				8.75	21.8	6.14	73.7	1.69													
MW-3	5/26	1110		16.86				43.75	21.5	5.96	144.6	1.67													
MW-4	5/27	1730		14.44				26.25	22.2	4.71	103.2	2.63													
MW-5	5/26	1100		18.01				21.25	22.4	4.87	99.3	1.78													
MW-6	5/26	1630		13.7				46.25	23.6	4.91	105.6	1.49	24	4.89	109.6	1.81	24	4.93	105.7	1.81	23	4.99	108.8	1.51	8
MW-7	5/26	1400		14.03				50+	21.7	6.47	1175.0	1.43	21	6.51	1040.0	1.89	21	6.51	9.0	1.55	22	6.51	820.0	1.51	5.5
MW-8	5/28	1010		3.89				30+	21.6	6.90	708.0	1.42	19	6.94	824.0	0.89	19	6.96	823.0	0.87	19	6.97	813.0	1.05	8
MW-9	5/28	1445		2.54				20	23.2	5.42	61.4	1.43	19	5.25	45.5	1.86	19	5.44	45.9	2.87	18	5.47	44.2	4.01	11
MW-10	5/27	945		12.58		25.51		12.5	23.4	5.28	57.0	1.84	23	5.35	95.5	1.78	23	5.25	57.7	1.43	23	5.29	57.8	1.61	5
MW-11	5/28	1645		18.92				11.25	19.5	4.80	111.2	4.63													
MW-12	5/28	915		8.5				20	23.1	5.21	73.7	3.19	22	4.84	58.3	3.12	22	4.86	58.0	3.21	21	4.82	58.2	3.22	8
MW-13	5/28	1045		2.94				16.25	20.5	5.44	82.5	2.51	20	5.09	68.0	7.07	19	5.25	68.0	4.26	21	5.14	69.0	2.65	8.5
MW-14	5/28	1515		5.66				16.25	20.3	4.86	79.1	2.29	21	4.79	53.7	2.91	20	4.74	48.6	3.87	20	5.12	52.8	4.62	9.5
MW-15	5/28	1250		15.85				32.5	22.8	5.13	75.4	2.17													
MW-16	5/28	1315		3.53				8.75	20.0	6.87	184.9	1.76	19	6.88	140.5	2.51	19	6.87	141.5	2.27	19	6.87	141.5	2.61	10.5
MW-17	5/28	1340		6.96				21.25	21.3	5.78	90.1	1.84	21	6.04	92.2	2.26	21	6.07	94.0	2.11	21	6.14	98.2	2.25	9
MW-18D	NL	NL		NL																					
MW-19	5/29	945	14.74	14.75	0.01																				
MW-20	5/29	1330		13.85				11.25	21.6	6.14	92.7	1.08													
MW-21	5/29	1350		14.75				20+	21.6	5.80	177.4	1.62													
MW-22	5/29	1340		15.11				20+	21.4	5.96	143.5	1.69													
MW-23	5/29	1255		14.65				20+	22.3	6.05	201.5	1.74													

Notes:
1) Depth to product and water measured from top of casing
2) Cond. = Conductivity
3) DO= Dissolved Oxygen

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS INC.

4) Total Purge Volume is estimated in gallons
5) mg/L =milligrams per liter
6) NL = Not Located
7) BD= Bailed Dry

FORMER SCDOT COLUMBIA MAINTENANCE FACILITY

GS2 PROJECT # 09-3114-1

TABLE 5

Groundwater Sampling Log

SITE ID # 07359

Sampled by: L. Lee, D. Kiem

									Initial				1st Volume				2nd Volume				Final				
Well ID	Date	Time	Depth to Product	Depth to Water (Feet)	Product Thickness	Total Depth (Feet)	Ferrous Iron (mg/L)	Dissolved CO2 (mg/L)	Temp	pH	Cond	DO	Temp	pH	Cond	DO	Temp	pH	Cond	DO	Temp	pH	Cond	DO	Total Purge Volume
MW-24	5/29	930	14.0	15.42	1.42																				
MW-25	5/29	1305		14.12				20+	20.8	6.45	350.2	1.57													
MW-26	5/27	1500	15.43	15.94	0.51																				
MW-27	5/29	1150		15.65				35	25.1	5.22	65.3	1.13													
MW-28	5/26	1130		17.36		23.9		21.25	21.5	5.66	936.0	1.45	21.7	5.69	98.7	1.57									1.5 BD
MW-29	5/26	1030		17.85		24.9		50+	21.7	5.52	140.5	1.53	21.6	5.53	112.4	2.72									1.5BD
MW-30	5/29	1215		16.8		24.22		25	21.0	5.29	77.6	1.43	21.6	5.22	68.4	1.02	20.3	5.10	56.4	0.06	20.2	5.21	57.5	0.06	10
MW-31	5/29	1115		16.15		24.85		32.5	23.7	5.41	134.3	1.35													4 BD
MW-32	5/29	1409		15.15		24.56		20+	21.9	6.61	358.1	1.08	21.0	6.58	352.0	0.83	21.2	6.50	335.7	1.33					6
MW-33	5/26	1345		14.91		24.74		26.25	20.7	6.02	262.2	1.63	20.5	5.68	230.1	1.50									3 BD
MW-34	5/26	1330		14.72		24.72		43.75	21.6	6.55	277.7	1.48	21.1	6.51	255.7	1.44									2 BD
MW-35	5/27	1400		16.5		24.78		30+	21.6	4.19	889.0	1.40	21.8	4.09	802.0	1.46									3.5 BD
MW-36	5/29	940	14.96	17.21	2.25	24.21																			
MW-37	5/29	1440		17.57		24.48		16.25	23.8	5.89	185.5	0.69	23.6	5.74	155.6	1.38	23.3	5.72	152.3	1.83	24.3	5.72	157.3	1.57	6
MW-38	5/26	1530		13.89		24.81		62.5	23.2	6.04	32.9	1.37	23.2	5.78	12.6	1.08	23.9	5.88	15.6	1.29	23.8	6.00	19.7	1.66	8
MW-39	5/27	1320		16.12		24.51		25	21.9	4.96	110.3	1.29	22.0	4.90	1065.0	1.56									2 BD
MW-40	5/29	920		14.84		24.63		33.75	21.8	5.51	101.0	1.42													5
MW-41	5/29	935		14.83		24.31		20+	22.6	5.78	123.5	1.42													5
MW-42	5/27	836		16.36		24.66		35	23.5	4.45	113.4	1.59	23.5	4.87	80.3	1.39									4 BD
MW-43	5/26	1551		13.49		25.09		50+	21.2	4.91	286.3	1.78	21.7	4.88	313.2	2.31	21.6	4.82	304.4	2.05	21.6	4.78	332.9	2.63	6
MW-44	5/26	1600		14.35		25.4		31.25	20.4	4.92	86.2	3.01	20.1	4.84	84.6	3.11	20.6	4.99	80.1	2.65	20.8	4.97	78.1	2.45	8
MW-45	5/26	1700		17.09		24.43		37.5+	23.5	5.01	80.5	1.35	23.2	4.96	71.4	1.40									3 BD
MW-46	5/27	1240		14.34		24.55		22.5	24.0	5.46	89.3	1.30	23.8	5.25	80.8	1.80	23.8	5.34	75.4	2.18					4.5 BD
MW-47	5/27	1130		14.51		24.64		33.75	24.4	5.27	124.6	1.58	23.9	5.22	126.0	1.38									3 BD
MW-48	5/27	915		14.36		24.83		16.25	23.9	5.05	80.7	1.19	23.9	5.12	74.3	1.75	23.8	5.09	82.3	2.27					4.5 BD

Notes:

1) Depth to product and water measured from top of casing
2) Cond. = Conductivity
3) DO= Dissolved Oxygen

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC

4) Total Purge Volume is estimated in gallons
5) mg/L =milligrams per liter
6) NL = Not Located
7) BD= Bailed Dry

FORMER SCDOT COLUMBIA MAINTENANCE FACILITY
GS2 PROJECT # 09-3114-1

TABLE 5
Groundwater Sampling Log

SITE ID # 07359
Sampled by: L. Lee, D. Kiem

									Initial				1st Volume				2nd Volume				Final				
Well ID	Date	Time	Depth to Product	Depth to Water (Feet)	Product Thickness	Total Depth (Feet)	Ferrous Iron (mg/L)	Dissolved CO2 (mg/L)	Temp	pH	Cond	DO	Temp	pH	Cond	DO	Temp	pH	Cond	DO	Temp	pH	Cond	DO	Total Purge Volume
MW-49	5/27	1030		13.29		24.41		30+	24.5	4.77	125.7	1.19	24.1	4.91	146.6	1.21									2.5 BD
DW-1	6/5	1640		16.86		59.83		6.25	24.4	7.29	107.7	3.83	24.2	7.32	106.9	3.81	24.1	7.28	107.1	3.75	23.9	7.27	106.8	3.69	20
DW-2	6/8	935		17.79		61.11		6.25	23.1	9.03	174.9	3.62	22.8	8.98	181.5	3.61	23.8	8.81	191.6	3.92	22.3	8.77	193.3	4.16	18
DW-3	6/8	1030		37.08		55.77		30+	25.5	8.90	158.7	5.12	24.7	8.75	162.3	5.21	22.1	8.78	165.3	5.25	23.2	8.34	168.9	5.31	18
DW-4	6/5	1820		16.10		63.8		8.75	22.1	6.98	79.1	3.86	23.2	7.05	76.4	3.80	23.8	6.81	71.8	3.81	21.9	6.83	69.5	3.72	20
DW-5	6/5	1910		16.67		61.02		50+	24.4	7.38	108.7	4.42	23.5	7.12	102.2	4.56	23.1	7.37	103.7	4.58	24.1	7.42	98.7	4.69	20
DW-6	6/5	1730		16.85		63.11		8.75	25.7	7.64	135.2	1.61	25.3	7.55	135.1	1.67	24.9	7.75	135.5	1.79	25.1	7.92	134.5	1.78	18
SW-1	5/28	1100																							

Notes:
1) Depth to product and water measured from top of casing
2) Cond. = Conductivity
3) DO= Dissolved Oxygen

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC

4) Total Purge Volume is estimated in gallons
5) mg/L =milligrams per liter
6) NL = Not Located
7) BD= Bailed Dry

TABLE 6

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (PRIMARY CoC)

Well ID	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Napthalene (µg/l)	MTBE (µg/l)	EDB (µg/l)	1, 2 DCA (mg/l)	Total Lead (µg/l)
RBSL		**5**	**1,000**	**700**	**10,000**	**n/a**	**25**	**40**	**0.05**	**n/a**	**15**
MW-1	05/27/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021	<5.0	4.68
MW-1R	05/27/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021	<5.0	1.95
MW-2	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
MW-2R	05/29/09	**1,400**	**8,100**	**1,700**	8,700	**19,900**	**570**	<500	**7.50**	<500	**560**
MW-3	05/26/09	**3,200**	**14,000**	**1,800**	**10,900**	**29,900**	**700**	<500	**15.7**	<500	**76**
MW-4	05/27/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	<1.0
MW-5	05/26/09	**16**	<5.0	<5.0	<5.0	**16**	<5.0	<5.0	<0.021	<5.0	1.72
MW-6	05/26/09	**640**	270	550	**820**	**2,280**	**250**	<5.0	**1.89**	<5.0	10.2
MW-7	05/26/09	**1,200**	140	160	**284**	**1,784**	**71**	**40**	<0.021	<5.0	**37.0**
MW-8	05/28/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	**53**	<0.021	<5.0	**5,310**
MW-9	05/28/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	**16.4**
MW-10	05/27/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021	<5.0	4.46
MW-11	05/28/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	8.68
MW-12	05/28/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	5.02
MW-13	05/28/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	**38.6**
MW-14	05/28/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	**23.9**

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GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC

5) MTBE = Methyl-Tertiary-Butyl Ether
6) Bolded concentrations exceed RBSL's
7) BDL = Below Practical Detection Limits

TABLE 6

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Well ID	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Napthalene (µg/l)	MTBE (µg/l)	EDB (µg/l)	1, 2 DCA (mg/l)	Total Lead (µg/l)
RBSL		**5**	**1,000**	**700**	**10,000**	**n/a**	**25**	**40**	**0.05**	**n/a**	**15**
MW-15	05/28/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	6.55
MW-16	05/28/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	6.45
MW-17	05/28/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0.046	<5.0	2.07
MW-18D	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
MW-19	06/01/09	**29,000**	**31,000**	<2500	**13,100**	**73,100**	<2500	<2500	**650**	<2500	**1040**
MW-20	05/29/09	**810**	**3,800**	410	3,030	**8,050**	**120**	<5.0	**4.54**	<5.0	**161**
MW-21	05/29/09	**2,300**	**3,300**	530	2,680	**8,810**	<500	<500	**11.5**	<500	**181**
MW-22	05/29/09	**5,300**	**17,000**	<2500	**12,000**	**34,300**	<2500	<2500	**63.8**	<2500	**1620**
MW-23	05/29/09	**72**	580	290	1,560	**2,502**	**89**	<5.0	**0.219**	<5.0	**21.2**
MW-24	05/29/09	**8,600**	**30,000**	**3,400**	**18,600**	**60,600**	<2500	<2500	**133**	<2500	**447**
MW-25	05/29/09	**1,500**	**9,100**	**1,800**	8,400	**20,800**	<500	<500	**3.71**	<500	**84.3**
MW-26	05/27/09	**6,500**	**6,900**	**2,200**	7,800	**23,400**	**690**	**470**	**42.8**	**72**	**99.1**
MW-27	05/29/09	**9,300**	**11,000**	**1,100**	5,600	**27,000**	**350**	<250	**190**	<250	**242**
MW-28	05/26/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021	<5.0	**198**
MW-29	05/26/09	**2,500**	**8,400**	**1,700**	9,000	**21,600**	**1,000**	20	**9.50**	**7.3**	**108**
MW-30	05/26/09	**25,000**	**34,000**	**3,000**	**16,200**	**78,200**	<2500	<2500	**852**	<2500	**962**

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GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC

5) MTBE = Methyl-Tertiary-Butyl Ether
6) Bolded concentrations exceed RBSL's
7) BDL = Below Practical Detection Limits

TABLE 6

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Well ID	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Napthalene (µg/l)	MTBE (µg/l)	EDB (µg/l)	1, 2 DCA (mg/l)	Total Lead (µg/l)
RBSL		**5**	**1,000**	**700**	**10,000**	**n/a**	**25**	**40**	**0.05**	**n/a**	**15**
MW-31	05/29/09	**550**	34	83	44	**711**	**94**	17	**0.451**	**15**	**36**
MW-32	05/29/09	**8,400**	**15,000**	<2500	9,900	**33,300**	<2500	<2500	**15.70**	<2500	**87.2**
MW-33	05/26/09	**950**	830	130	380	**2,290**	**50**	**47**	**9.92**	**35**	**472**
MW-34	05/26/09	**1,900**	**1,500**	280	860	**4,540**	**150**	25	<0.020	<5.0	**356**
MW-35	05/27/09	**5,200**	**20,000**	**2,800**	**13,800**	**41,800**	**760**	<500	**94.40**	<500	**304**
MW-36	05/29/09	**19,000**	**41,000**	**3,300**	**18,500**	**81,800**	<2500	<2500	**318.0**	<2500	**411**
MW-37	05/29/09	**7,500**	**21,000**	**2,700**	**14,300**	**45,500**	<2500	<2500	**103.0**	<2500	**258**
MW-38	05/26/09	**3,800**	**1,800**	**1,600**	3,240	**10,440**	**600**	**92**	**4.73**	**16**	**107**
MW-39	05/27/09	**68**	14	23	33	**138**	<5.0	<5.0	<0.020	<5.0	**402**
MW-40	05/29/09	**11,000**	**18,000**	**2,300**	**12,700**	**44,000**	**690**	<500	**171.0**	<500	**522**
MW-41	05/29/09	**380**	26	14	62	**482**	8.8	6.6	**0.75**	**14**	12.7
MW-42	05/27/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	11.9
MW-43	05/26/09	**6,100**	**12,000**	**1,600**	6,900	**26,600**	**570**	**49**	**37.20**	**28**	**290**
MW-44	05/26/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021	<5.0	**270**
MW-45	05/26/09	**150**	120	170	570	**1,010**	**120**	<5.0	**0.64**	<5.0	**293**
MW-46	05/27/09	**3,000**	**4,400**	400	2,290	**10,090**	**60**	11	**36.1**	**55**	**151**

Notes:
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3) NT = Not Tested
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GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC

5) MTBE = Methyl-Tertiary-Butyl Ether
6) Bolded concentrations exceed RBSL's
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TABLE 6

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Well ID	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Napthalene (µg/l)	MTBE (µg/l)	EDB (µg/l)	1, 2 DCA (mg/l)	Total Lead (µg/l)
RBSL		**5**	**1,000**	**700**	**10,000**	**n/a**	**25**	**40**	**0.05**	**n/a**	**15**
MW-47	05/27/09	**200**	280	180	470	**1,130**	**77**	<5.0	**0.228**	<5.0	**108**
MW-48	05/27/09	**190**	<5.0	<5.0	<5.0	**190**	16	<5.0	<0.021	<5.0	**154**
MW-49	05/27/09	<5.0	<5.0	<5.0	<5.0	BDL	16	<5.0	<0.021	<5.0	**118**
DW-1	06/08/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	10.4
DW-2	06/08/09	**15**	97	34	234	**380**	**34**	<5.0	0.029	<5.0	**55.8**
DW-3	06/08/09	<5.0	7	<5.0	9.6	**16.6**	8	<5.0	<0.020	<5.0	6.69
DW-4	06/05/09	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	1.39
DW-5	06/05/09	**8.9**	48	34	163	**253.9**	**1400**	<5.0	0.038	<5.0	**72.8**
DW-6	06/04/09	<5.0	<5.0	<5.0	<5.0	**BDL**	<5.0	<5.0	<0.020	<5.0	4.76
SW-1	05/28/09	**16**	<5.0	<5.0	<5.0	**16.0**	<5.0	<5.0	<0.020	<5.0	2.07

Notes:
1) µg/l = micrograms per liter
2)mg/l = milligrams per liter
3) NT = Not Tested
4) NL= Not Located

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC

5) MTBE = Methyl-Tertiary-Butyl Ether
6) Bolded concentrations exceed RBSL's
7) BDL = Below Practical Detection Limits

TABLE 6A

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (NATURAL ATTENUATION PARAMETERS)

Well ID	Sample Date	DISSOLVED CO2 (µg/l)	DISSOLVED OXYGEN (µg/l)	NITRATE (µg/l)	SULFATE (µg/l)	METHANE (µg/l)	FERROUS IRON (µg/l)
RBSL		**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
MW-1	05/27/09	35.00	1.41	NT	NT	NT	NT
MW-1R	05/27/09	16.25	1.67	NT	NT	NT	NT
MW-2	ABD	ABD	ABD	ABD	ABD	ABD	ABD
MW-2R	05/29/09	8.75	1.69	NT	NT	NT	NT
MW-3	05/26/09	43.75	1.67	NT	NT	NT	NT
MW-4	05/27/09	26.25	2.63	NT	NT	NT	NT
MW-5	05/26/09	21.25	1.78	NT	NT	NT	NT
MW-6	05/26/09	46.25	1.51	NT	NT	NT	NT
MW-7	05/26/09	50+	1.51	NT	NT	NT	NT
MW-8	05/28/09	30+	1.05	NT	NT	NT	NT
MW-9	05/28/09	20.00	4.01	NT	NT	NT	NT
MW-10	05/27/09	12.50	1.61	NT	NT	NT	NT
MW-11	05/28/09	11.25	4.63	NT	NT	NT	NT
MW-12	05/28/09	20.00	3.22	NT	NT	NT	NT
MW-13	05/28/09	16.25	2.65	NT	NT	NT	NT
MW-14	05/28/09	16.25	4.62	NT	NT	NT	NT

Notes:
1) µg/l = micrograms per liter
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3) NT = Not Tested
4) NL= Not Located
5) MTBE = Methyl-Tertiary-Butyl Ether
6) Bolded concentrations exceed RBSL's
7) BDL = Below Practical Detection Limits

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC

TABLE 6A

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (NATURAL ATTENUATION PARAMETERS)

Well ID	Sample Date	DISSOLVED CO2 (µg/l)	DISSOLVED OXYGEN (µg/l)	NITRATE (µg/l)	SULFATE (µg/l)	METHANE (µg/l)	FERROUS IRON (µg/l)
RBSL		**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
MW-15	05/28/09	32.50	2.17	NT	NT	NT	NT
MW-16	05/28/09	8.75	2.61	NT	NT	NT	NT
MW-17	05/28/09	21.25	2.25	NT	NT	NT	NT
MW-18D	NL	NL	NL	NT	NT	NT	NL
MW-19	05/29/09	PROD	PROD	NT	NT	NT	PROD
MW-20	05/29/09	11.25	1.08	NT	NT	NT	NT
MW-21	05/29/09	20+	1.62	NT	NT	NT	NT
MW-22	05/29/09	20+	1.69	NT	NT	NT	NT
MW-23	05/29/09	20+	1.74	NT	NT	NT	NT
MW-24	05/29/09	PROD	PROD	NT	NT	NT	PROD
MW-25	05/29/09	20+	1.57	NT	NT	NT	NT
MW-26	05/27/09	PROD	PROD	NT	NT	NT	PROD
MW-27	05/29/09	35.00	1.13	NT	NT	NT	NT
MW-28	05/26/09	21.25	1.57	NT	NT	NT	NT
MW-29	05/26/09	50+	2.72	NT	NT	NT	NT
MW-30	05/29/09	25.00	0.06	NT	NT	NT	NT

Notes:
1) µg/l = micrograms per liter
2)mg/l = milligrams per liter
3) NT = Not Tested
4) NL= Not Located
5) MTBE = Methyl-Tertiary-Butyl Ether
6) Bolded concentrations exceed RBSL's
7) BDL = Below Practical Detection Limits

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

TABLE 6A

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (NATURAL ATTENUATION PARAMETERS)

Well ID	Sample Date	DISSOLVED CO2 (µg/l)	DISSOLVED OXYGEN (µg/l)	NITRATE (µg/l)	SULFATE (µg/l)	METHANE (µg/l)	FERROUS IRON (µg/l)
RBSL		**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
MW-31	05/29/09	32.50	1.35	NT	NT	NT	NT
MW-32	05/29/09	20+	1.33	NT	NT	NT	NT
MW-33	05/26/09	26.25	1.50	NT	NT	NT	NT
MW-34	05/26/09	43.75	1.44	NT	NT	NT	NT
MW-35	05/27/09	30+	1.46	NT	NT	NT	NT
MW-36	05/29/09	PROD	PROD	NT	NT	NT	PROD
MW-37	05/29/09	16.25	1.57	NT	NT	NT	NT
MW-38	05/26/09	62.50	1.66	NT	NT	NT	NT
MW-39	05/27/09	25.00	1.56	NT	NT	NT	NT
MW-40	05/29/09	33.75	1.42	NT	NT	NT	NT
MW-41	05/29/09	20+	1.42	NT	NT	NT	NT
MW-42	05/27/09	35.00	1.39	NT	NT	NT	NT
MW-43	05/26/09	50+	2.63	NT	NT	NT	NT
MW-44	05/26/09	31.25	2.45	NT	NT	NT	NT
MW-45	05/26/09	37.5+	1.40	NT	NT	NT	NT
MW-46	05/27/09	22.50	2.18	NT	NT	NT	NT

Notes:
1) µg/l = micrograms per liter
2)mg/l = milligrams per liter
3) NT = Not Tested
4) NL= Not Located
5) MTBE = Methyl-Tertiary-Butyl Ether
6) Bolded concentrations exceed RBSL's
7) BDL = Below Practical Detection Limits

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC

TABLE 6A

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (NATURAL ATTENUATION PARAMETERS)

Well ID	Sample Date	DISSOLVED CO2 (µg/l)	DISSOLVED OXYGEN (µg/l)	NITRATE (µg/l)	SULFATE (µg/l)	METHANE (µg/l)	FERROUS IRON (µg/l)
RBSL		**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
MW-47	05/27/09	33.75	1.38	NT	NT	NT	NT
MW-48	05/27/09	16.25	2.27	NT	NT	**NT**	NT
MW-49	05/27/09	30+	1.21	NT	NT	NT	NT
DW-1	06/05/09	6.25	3.69	NT	NT	NT	NT
DW-2	06/08/09	6.25	4.16	NT	NT	NT	NT
DW-3	06/08/09	30+	5.31	NT	NT	NT	NT
DW-4	06/05/09	8.75	3.72	NT	NT	NT	NT
DW-5	06/05/09	50+	4.69	NT	NT	NT	NT
DW-6	06/05/09	8.75	1.78	NT	NT	NT	NT
SW-1	05/28/09	NT	NT	NT	NT	NT	NT

Notes:
1) µg/l = micrograms per liter
2) mg/l = milligrams per liter
3) NT = Not Tested
4) NL= Not Located
5) MTBE = Methyl-Tertiary-Butyl Ether
6) Bolded concentrations exceed RBSL's
7) BDL = Below Practical Detection Limits

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

TABLE 6B

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (OXYGENATES)

Well ID	Sample Date	3,3-Dimethyl-1-butanol (µg/l)	Ethanol (µg/l)	Ethyl tert-butyl ether (µg/l)	Isopropyl Ether (µg/l)	tert-Amyl Alcohol (µg/l)	tert-Amyl methyl ether (µg/l)	tert-Butyl Alcohol (µg/l)	tert-Butyl formate (µg/l)
RBSL		**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
MW-1	05/27/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-1R	05/27/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-2	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
MW-2R	05/29/09	<10000	<10000	<10000	<1000	<10000	<1000	<10000	<10000
MW-3	05/26/09	<10000	<10000	<10000	<1000	<10000	<1000	<10000	<10000
MW-4	05/27/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-5	05/26/09	<100	<100	<100	<10	**420**	<10	<100	<100
MW-6	05/26/09	<100	<100	<100	**20**	**1,200**	<10	<100	<100
MW-7	05/26/09	<100	<100	<100	**120**	**1,800**	**31**	**190**	<100
MW-8	05/28/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-9	05/28/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-10	05/27/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-11	05/28/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-12	05/28/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-13	05/28/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-14	05/28/09	<100	<100	<100	<10	<100	<10	<100	<100

Notes:
1) µg/l = micrograms per liter
2)mg/l = milligrams per liter
3) NT = Not Tested
4) NL= Not Located
5) MTBE = Methyl-Tertiary-Butyl Ether
6) Bolded concentrations exceed RBSL's
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GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

TABLE 6B

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (OXYGENATES)

Well ID	Sample Date	3,3-Dimethyl-1-butanol (µg/l)	Ethanol (µg/l)	Ethyl tert-butyl ether (µg/l)	Isopropyl Ether (µg/l)	tert-Amyl Alcohol (µg/l)	tert-Amyl methyl ether (µg/l)	tert-Butyl Alcohol (µg/l)	tert-Butyl formate (µg/l)
RBSL		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-15	05/28/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-16	05/28/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-17	05/28/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-18D	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
MW-19	06/01/09	<50000	<50000	<50000	<5000	<50000	<5000	<50000	<50000
MW-20	05/29/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-21	05/29/09	<10000	<10000	<10000	<1000	<10000	<1000	<10000	<10000
MW-22	05/29/09	<50000	<50000	<50000	<5000	<50000	<5000	<50000	<50000
MW-23	05/29/09	<100	<100	<100	<10	**220**	<10	<100	<100
MW-24	05/29/09	<50000	<50000	<50000	<5000	<50000	<5000	<50000	<50000
MW-25	05/29/09	<10000	<10000	<10000	<1000	<10000	<1000	<10000	<10000
MW-26	05/27/09	<100	<100	<100	**180**	**4,200**	**100**	<100	<100
MW-27	05/29/09	<5000	<5000	<5000	**610**	<5000	<500	<5000	<5000
MW-28	05/26/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-29	05/26/09	<100	<100	<100	**30**	**2,700**	**39**	<100	<100
MW-30	05/26/09	<50000	<50000	<50000	<5000	<50000	<5000	<50000	<50000

Notes:
1) µg/l = micrograms per liter
2)mg/l = milligrams per liter
3) NT = Not Tested
4) NL= Not Located
5) MTBE = Methyl-Tertiary-Butyl Ether
6) Bolded concentrations exceed RBSL's
7) BDL = Below Practical Detection Limits

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC

TABLE 6B

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (OXYGENATES)

Well ID	Sample Date	3,3-Dimethyl-1-butanol (µg/l)	Ethanol (µg/l)	Ethyl tert-butyl ether (µg/l)	Isopropyl Ether (µg/l)	tert-Amyl Alcohol (µg/l)	tert-Amyl methyl ether (µg/l)	tert-Butyl Alcohol (µg/l)	tert-Butyl formate (µg/l)
RBSL		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-30	05/26/09	<50000	<50000	<50000	<5000	<50000	<5000	<50000	<50000
MW-31	05/29/09	<100	<100	<100	**44**	**810**	**13**	<100	<100
MW-32	05/29/09	<50000	<50000	<50000	<5000	<50000	<5000	<50000	<50000
MW-33	05/26/09	<100	<100	<100	**100**	**1,400**	**28**	<100	<100
MW-34	05/26/09	<100	<100	<100	**88**	**1,300**	**24**	**100**	<100
MW-35	05/27/09	<10000	<10000	<10000	<1000	<10000	<1000	<10000	<10000
MW-36	05/29/09	<50000	<50000	<50000	<5000	<50000	<5000	<50000	<50000
MW-37	05/29/09	<50000	<50000	<50000	<5000	<50000	<5000	<50000	<50000
MW-38	05/26/09	<100	<100	<100	**360**	**5,000**	**95**	**390**	<100
MW-39	05/27/09	<100	<100	<100	<10	**280**	<10	<100	<100
MW-40	05/29/09	<10000	<10000	<10000	<1000	<10000	<1000	<10000	<10000
MW-41	05/29/09	<100	<100	<100	**40**	**970**	<10	**120**	<100
MW-42	05/27/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-43	05/26/09	<100	<100	<100	**370**	**5,000**	**130**	<100	<100
MW-44	05/26/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-45	05/26/09	<100	<100	<100	<10	**120**	<10	<100	<100

Notes:
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5) MTBE = Methyl-Tertiary-Butyl Ether
6) Bolded concentrations exceed RBSL's
7) BDL = Below Practical Detection Limits

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

TABLE 6B

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (OXYGENATES)

Well ID	Sample Date	3,3-Dimethyl-1-butanol (µg/l)	Ethanol (µg/l)	Ethyl tert-butyl ether (µg/l)	Isopropyl Ether (µg/l)	tert-Amyl Alcohol (µg/l)	tert-Amyl methyl ether (µg/l)	tert-Butyl Alcohol (µg/l)	tert-Butyl formate (µg/l)
RBSL		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-46	05/27/09	<100	<100	<100	**200**	**3200**	**48**	**200**	<100
MW-47	05/27/09	<100	<100	<100	<10	<100	<10	<100	<100
MW-48	05/27/09	<100	<100	<100	<10	**430**	<10	<100	<100
MW-49	05/27/09	<100	<100	<100	<10	<100	<10	<100	<100
DW-1	06/08/09	<100	<100	<100	<10	<100	<10	<100	<100
DW-2	06/08/09	<100	<100	<100	<10	<100	<10	<100	<100
DW-3	06/08/09	<100	<100	<100	<10	<100	<10	<100	<100
DW-4	06/05/09	<100	<100	<100	<10	<100	<10	<100	<100
DW-5	06/05/09	<100	<100	<100	<10	<100	<10	<100	<100
DW-6	06/04/09	<100	<100	<100	<10	<100	<10	<100	<100
SW-1	05/28/09	<100	<100	<100	<10	<100	<10	<100	<100

Notes:
1) µg/l = micrograms per liter
2)mg/l = milligrams per liter
3) NT = Not Tested
4) NL= Not Located
5) MTBE = Methyl-Tertiary-Butyl Ether
6) Bolded concentrations exceed RBSL's
7) BDL = Below Practical Detection Limits

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

TABLE 7

Former SCDOT Columbia Maintenance Facility **SITE ID# 07359**

3736 Marsteller Drive, Columbia, SC **GS2 Project# 09-3114-1**

GROUNDWATER POTENTIOMETRIC SUMMARY

Well	Well Depth (Feet)	Screen Interval (Feet)	Top of casing Elevation(ft)	Depth to Water (btoc)	Groundwater Elevation(ft)
MW-1	18	8 to 18	249.11	15.63	233.48
MW-1R	25	15 to 25	249.08	15.71	233.37
MW-2	ABD	ABD	ABD	ABD	ABD
MW-2R	20	10 to 20	246.80	14.51	232.29
MW-3	24	14 to 24	249.80	16.86	232.94
MW-4	24	14 to 24	249.26	14.44	234.82
MW-5	24	14 to 24	251.69	18.01	233.68
MW-6	25	15 to 25	242.43	13.70	228.73
MW-7	25	15 to 25	244.04	14.03	230.01
MW-8	20	10 to 20	230.68	3.89	226.79
MW-9	25	15 to 25	226.02	2.54	223.48
MW-10	25	15 to 25	243.68	12.58	231.1
MW-11	25	15 to 25	256.77	18.92	237.85
MW-12	25	15 to 25	240.48	8.50	231.98
MW-13	20	10 to 20	229.74	2.94	226.8
MW-14	25	15 to 25	231.55	5.66	225.89
MW-15	25	15 to 25	225.95	15.85	210.1
MW-16	25	15 to 25	210.46	3.53	206.93
MW-17	25	15 to 25	222.95	6.96	215.99
MW-18	ABD	ABD	ABD	ABD	ABD
MW-19	23	13 to 23	246.86	**0.01' FP**	**FP**
MW-20	25	10 to 25	246.43	13.85	232.58
MW-21	25	10 to 25	246.88	14.75	232.13
MW-22	25	10 to 25	247.17	15.11	232.06
MW-23	25	10 to 25	247.14	14.65	232.49
MW-24	25	10 to 25	246.90	**1.42' FP**	**FP**
MW-25	25	10 to 25	246.94	14.12	232.82

Comments:
Water Levels Measured on 5/25/09 through 6/8/09

TABLE 7

Former SCDOT Columbia Maintenance Facility — **SITE ID# 07359**

3736 Marsteller Drive, Columbia, SC — **GS2 Project# 09-3114-1**

GROUNDWATER FIELD SCREENING SUMMARY

Well	Well Depth (Feet)	Screen Interval (Feet)	Top of casing Elevation(ft)	Depth to Water (btoc)	Groundwater Elevation(ft)
MW-26	25	10 to 25	248.00	**0.51' FP**	**FP**
MW-27	25	10 to 25	247.91	15.65	232.26
MW-28	23.9	8.9 to 23.9	250.17	17.36	232.81
MW-29	24.9	9.9 to 24.9	250.87	17.85	233.02
MW-30	24.22	9.22 to 24.22	249.29	**0.02' FP**	**FP**
MW-31	24.85	9.85 to 24.85	248.1	16.15	231.95
MW-32	24.56	9.56 to 24.56	247.48	15.15	232.33
MW-33	24.74	9.74 to 24.74	246.58	14.91	231.67
MW-34	24.72	9.72 to 24.72	246.00	14.72	231.28
MW-35	24.78	9.78 to 24.78	249.39	16.5	232.89
MW-36	24.21	9.21 to 24.21	247.26	**2.25' FP**	**FP**
MW-37	24.48	9.48 to 24.48	247.26	17.57	229.69
MW-38	24.81	9.81 to 24.81	243.17	13.89	229.28
MW-39	24.51	9.51 to 24.51	249.10	16.12	232.98
MW-40	24.63	9.63 to 24.63	247.67	14.84	232.83
MW-41	24.31	9.31 to 24.31	246.97	14.83	232.14
MW-42	24.66	9.66 to 24.66	246.72	16.36	230.36
MW-43	25.09	10.09 to 25.09	240.06	13.49	226.57
MW-44	25.4	10.4 to 25.4	240.77	14.35	226.42
MW-45	24.43	9.43 to 24.43	246.55	17.09	229.46
MW-46	24.55	9.55 to 24.55	246.88	14.34	232.54
MW-47	24.64	9.64 to 24.64	246.29	14.51	231.78
MW-48	24.83	9.83 to 24.83	245.36	14.36	231
MW-49	24.41	9.41 to 24.41	245.57	13.29	232.28
DW-1	61.02	56.02 to 61.02	248.53	16.86	231.67
DW-2	61.15	56.15 to 61.15	250.16	17.79	232.37
DW-3	56.05	51.05 to 56.05	249.86	37.08	212.78

Comments:
Water Levels Measured on 5/25/09 through 6/8/09

GS2
ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC

TABLE 7

Former SCDOT Columbia Maintenance Facility **SITE ID# 07359**
3736 Marsteller Drive, Columbia, SC **GS2 Project# 09-3114-1**

GROUNDWATER FIELD SCREENING SUMMARY

Well	Well Depth (Feet)	Screen Interval (Feet)	Top of casing Elevation	Depth to Water (btoc)	Groundwater Elevation(ft)
DW-4	63.8	58.8 to 63.8	247.05	16.1	230.95
DW-5	61.02	56.02 to 61.02	243.27	16.67	226.6
DW-6	63.11	58.11 to 63.11	246.26	16.85	229.41

Comments:
Water Levels Measured on 5/25/09 through 6/8/09

TABLE 8

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS (PRIMARY CoC)

Well ID	Sample Date	Water Level (Ft.)	Product Thickness (Ft.)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Napthalene (µg/l)	MTBE (µg/l)	EDB (µg/l)	1, 2 DCA (mg/l)	Total Lead (µg/l)
RBSL		**n/a**	**n/a**	**5**	**1,000**	**700**	**10,000**	**n/a**	**25**	**40**	**0.05**	**n/a**	**15**
MW-1	03/30/00	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-1	09/25/03	--	--	**34**	10	<5.0	3.8	47.8	4.5	<5.0	<0.020	NT	11.0
MW-1	05/27/09	15.03	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021	<5.0	4.7
MW-1R	08/20/02	18.15	--	1.26	BDL	BDL	1.82	**3.08**	BDL	BDL	BDL	NT	BDL
MW-1R	04/20/04	--	--	**5.20**	<5.0	<5.0	<5.0	**5.20**	14	<5.0	NT	NT	NT
MW-1R	01/25/05	--	--	3.20	<5.0	<5.0	<5.0	**3.20**	18	<5.0	<0.020	<5.0	NT
MW-1R	07/27/05	--	--	**6.10**	<5.0	<5.0	<5.0	**6.10**	9.3	<5.0	NT	NT	NT
MW-1R	10/19/05	--	--	3.60	<5.0	<5.0	<5.0	**3.60**	16.0	<5.0	<0.020	NT	NT
MW-1R	07/10/06	--	--	1.90	<5.0	<5.0	<5.0	**1.90**	13.0	<5.0	<0.020	<5.0	NT
MW-1R	05/27/09	15.71	--	**<5.0**	<5.0	<5.0	<5.0	**BDL**	<5.0	<5.0	<0.021	<5.0	2.0
MW-2	03/30/00	16.65	0.96	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-2	08/20/02	16.94	1.12	**30,100**	**41,300**	**3,190**	**17,670**	**92,260**	**1,150**	**408**	**380**	NT	NT
MW-2	01/25/05	--	--	**3,100**	**10,000**	**780**	4,300	**18,180**	**380**	<50	**61**	<50	NT
MW-2	07/27/05	--	--	**2,100**	**6,700**	510	2,800	**12,110**	<500	<500	NT	NT	NT
MW-2R	12/17/08	14.20	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-2R	05/29/09	14.51	--	**1,400**	**8,100**	**1,700**	8,700	**19,900**	**570**	<500	8	<500	**560**

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GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC

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Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS (PRIMARY CoC)

Well ID	Sample Date	Water Level (Ft.)	Product Thickness (Ft.)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Napthalene (µg/l)	MTBE (µg/l)	EDB (µg/l)	1, 2 DCA (mg/l)	Total Lead (µg/l)
RBSL		**n/a**	**n/a**	**5**	**1,000**	**700**	**10,000**	**n/a**	**25**	**40**	**0.05**	**n/a**	**15**
MW-3	08/21/00	18.90	--	**7,475**	**9,794**	**1,024**	1,773	**20,066**	<1	**540**	NT	NT	**52.0**
MW-3	08/20/02	19.05	--	**5,590**	**12,500**	**1,470**	7,570	**27,130**	**715**	**416**	**70.0**	NT	**54.0**
MW-3	09/25/03	--	--	**3,900**	**16,000**	**1,900**	**11,000**	**32,800**	**680**	<5.0	**19.0**	NT	11.0
MW-3	04/20/04	--	--	**7,600**	**24,000**	**2,200**	**11,600**	**45,400**	**690**	<250	NT	NT	NT
MW-3	01/25/05	--	--	**7,000**	**25,000**	**1,300**	**13,900**	**47,200**	**1700**	<1000	90.0	<1000	NT
MW-3	07/27/05	--	--	**1,400**	**5,400**	**780**	5,900	**13,480**	**570**	<250	NT	NT	NT
MW-3	10/19/05	--	--	**5,600**	**16,000**	**1,200**	8,500	**31,300**	**750**	<250	170.0	NT	NT
MW-3	07/10/06	--	--	**2,300**	**10,000**	**950**	6,500	**19,750**	**770**	<500	25.0	<500	NT
MW-3	05/26/09	16.86	--	**3,200**	**14,000**	**1,800**	**10,900**	**29,900**	**700**	<500	15.7	<500	**76.0**
MW-4	08/21/00	17.29	--	3.21	5.98	<1	1.5	**10.69**	23.5	<1	NT	NT	**28.0**
MW-4	08/20/02	17.51	--	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL
MW-4	09/25/03	--	--	<5.0	<5.0	<5.0	<5.0	BDL	**38.0**	<5.0	<0.020	NT	2.20
MW-4	04/20/04	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-4	01/24/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	NT
MW-4	07/27/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-4	10/19/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	NT

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GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

TABLE 8

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS (PRIMARY CoC)

Well ID	Sample Date	Water Level (Ft.)	Product Thickness (Ft.)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Napthalene (µg/l)	MTBE (µg/l)	EDB (µg/l)	1, 2 DCA (mg/l)	Total Lead (µg/l)
RBSL		**n/a**	**n/a**	**5**	**1,000**	**700**	**10,000**	**n/a**	**25**	**40**	**0.05**	**n/a**	**15**
MW-4	07/10/06	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	NT
MW-4	05/27/09	14.44	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	<1.0
MW-5	08/21/00	19.57	--	2.42	3.37	<1	<1	**5.79**	<1	<1	NT	NT	**5.0**
MW-5	08/20/02	20.08	--	**25.70**	17.3	1.41	12.99	**57.4**	BDL	BDL	BDL	NT	BDL
MW-5	09/25/03	--	--	**46.0**	11.0	1.70	31.50	**90.2**	**44**	<5.0	<0.020	NT	<5.0
MW-5	04/20/04	--	--	**30.0**	<5.0	<5.0	13.30	**43.3**	4	<5.0	NT	NT	NT
MW-5	01/24/05	--	--	**25.0**	<5.0	<5.0	12.40	**37.4**	<5.0	<5.0	<0.020	<5.0	NT
MW-5	07/27/05	--	--	**57.0**	4.7	1.70	40.00	**103.4**	<5.0	<5.0	NT	NT	NT
MW-5	10/19/05	--	--	**33.0**	2.8	<5.0	22.50	**58.3**	<5.0	<5.0	<0.020	NT	NT
MW-5	07/10/06	--	--	**40.0**	<5.0	<5.0	25.20	**65.2**	<5.0	<5.0	<0.020	<5.0	NT
MW-5	05/26/09	18.01	--	**16.0**	<5.0	<5.0	<5.0	**16.0**	<5.0	<5.0	<0.021	<5.0	2
MW-6	08/20/02	15.15	--	**1,100**	**1,710**	626	3,330	**6,766**	**51.2**	1.99	**10.0**	NT	BDL
MW-6	09/25/03	--	--	**940**	**1,100**	640	3,200	**5,880**	**200**	<5.0	**3.2**	NT	9.0
MW-6	04/20/04	--	--	**990**	**1,100**	670	2,790	**5,550**	**160**	<25	NT	NT	NT
MW-6	01/25/09	--	--	**710**	**830**	580	2,060	**4,180**	**380**	<50	**3.4**	<50	NT
MW-6	07/27/05	--	--	**470**	200	570	1,720	**2,960**	**240**	<25	NT	NT	NT

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TABLE 8

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS (PRIMARY CoC)

Well ID	Sample Date	Water Level (Ft.)	Product Thickness (Ft.)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Napthalene (µg/l)	MTBE (µg/l)	EDB (µg/l)	1, 2 DCA (mg/l)	Total Lead (µg/l)
RBSL		**n/a**	**n/a**	**5**	**1,000**	**700**	**10,000**	**n/a**	**25**	**40**	**0.05**	**n/a**	**15**
MW-6	10/19/05	--	--	**400**	350	380	1,030	**2,160**	**200**	<25	1.0	NT	NT
MW-6	07/10/06	--	--	**300**	84	380	780	**1,544**	**250**	<5.0	0.19	<5.0	NT
MW-6	05/26/09	13.70	--	**640**	270	550	820	**2,280**	**250**	<5.0	1.89	<5.0	10.2
MW-7	08/20/02	15.10	--	**795**	72.6	107	131.2	**1,105.8**	**48.3**	**87.7**	**10.0**	NT	**26.0**
MW-7	09/25/03	--	--	**6,100**	**5,700**	540	1,600	**13,940**	<500	**250**	**0.055**	NT	**73.0**
MW-7	04/20/04	--	--	**3,800**	**2,000**	520	1,690	**8,010**	**170**	**360**	NT	NT	NT
MW-7	01/25/05	--	--	**6,600**	**5,100**	**830**	3,000	**15,530**	**650**	**300**	0.230	<250	NT
MW-7	07/27/05	--	--	**4,700**	**2,900**	560	1,780	**9,940**	**180**	**250**	NT	NT	NT
MW-7	10/19/05	--	--	**1,900**	840	220	670	**3,630**	**78**	**95**	<0.020	NT	NT
MW-7	07/10/06	--	--	**130**	9.9	16	22	**178**	10	**28**	<0.020	<5.0	NT
MW-7	05/26/09	14.03	--	**1,200**	140.0	160	284	**1,784**	**71**	**40**	<0.021	<5.0	**37.0**
MW-8	08/20/02	4.68	--	**171**	3.48	4.03	7.49	**186**	1.3	**261**	0.110	NT	**200.0**
MW-8	09/25/03	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	**53**	<5.0	NT	**260.0**
MW-8	04/20/04	--	--	**30**	<5.0	<5.0	<5.0	**30**	<5.0	**81**	NT	NT	NT
MW-8	01/25/09	--	--	<5.0	<5.0	<5.0	<5.0	BDL	6.40	**78**	<0.020	<5.0	NT
MW-8	07/27/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	**9.5**	NT	NT	NT

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SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS (PRIMARY CoC)

Well ID	Sample Date	Water Level (Ft.)	Product Thickness (Ft.)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Napthalene (µg/l)	MTBE (µg/l)	EDB (µg/l)	1, 2 DCA (mg/l)	Total Lead (µg/l)
RBSL		**n/a**	**n/a**	**5**	**1,000**	**700**	**10,000**	**n/a**	**25**	**40**	**0.05**	**n/a**	**15**
MW-8	10/19/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	**28.0**	<0.020	NT	NT
MW-8	07/10/06	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	**9.7**	<0.020	<5.0	NT
MW-8	05/28/09	3.89	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	**53.0**	<0.021	<5.0	**5,310.0**
MW-9	08/20/02	8.24	--	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL
MW-9	09/25/03	--	--	<5.0	<5.0	<5.0	<5.0	BDL	4.3	<5.0	<5.0	NT	**22**
MW-9	04/20/04	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-9	01/25/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	NT
MW-9	07/27/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-9	10/19/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	NT
MW-9	07/10/06	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	NT
MW-9	05/28/09	2.54	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	**16**
MW-10	08/20/02	14.22	--	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL
MW-10	09/25/03	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	7.6
MW-10	04/20/04	--	--	<5.0	<5.0	<5.0	<5.0	BDL	3.10	<5.0	NT	NT	NT
MW-10	01/25/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	NT
MW-10	07/27/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT

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3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS (PRIMARY CoC)

Well ID	Sample Date	Water Level (Ft.)	Product Thickness (Ft.)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Napthalene (µg/l)	MTBE (µg/l)	EDB (µg/l)	1, 2 DCA (mg/l)	Total Lead (µg/l)
RBSL		**n/a**	**n/a**	**5**	**1,000**	**700**	**10,000**	**n/a**	**25**	**40**	**0.05**	**n/a**	**15**
MW-10	10/19/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	NT
MW-10	07/10/06	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	NT
MW-10	05/27/09	0.19	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021	<5.0	4
MW-11	08/20/02	23.80	--	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	**64.0**
MW-11	09/25/03	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	5.1
MW-11	07/27/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-11	10/19/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	NT
MW-11	07/10/06	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	NT
MW-11	05/28/09	18.92		<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	9
MW-12	08/20/02	10.02	--	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL
MW-12	09/23/03	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	**18.0**
MW-12	04/20/04	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-12	01/25/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	NT
MW-12	07/27/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-12	10/19/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	NT
MW-12	07/10/06	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	NT

Notes:
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GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

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6) Bolded concentrations exceed RBSL's
7) BDL = Below Practical Detection Limits

TABLE 8

Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS (PRIMARY CoC)

Well ID	Sample Date	Water Level (Ft.)	Product Thickness (Ft.)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Napthalene (µg/l)	MTBE (µg/l)	EDB (µg/l)	1, 2 DCA (mg/l)	Total Lead (µg/l)
RBSL		**n/a**	**n/a**	**5**	**1,000**	**700**	**10,000**	**n/a**	**25**	**40**	**0.05**	**n/a**	**15**
MW-12	05/28/09	8.50	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	5
MW-13	08/20/02	3.04	--	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL
MW-13	09/25/03	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	**33.0**
MW-13	04/20/04	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-13	01/25/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	NT
MW-13	07/27/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-13	10/19/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	NT
MW-13	07/10/06	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	14	<0.020	<5.0	NT
MW-13	05/28/09	2.94	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	**39**
MW-14	08/20/02	7.90	--	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL
MW-14	09/25/03	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	8.5
MW-14	04/20/04	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-14	01/25/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	NT
MW-14	07/27/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-14	10/19/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	NT
MW-14	07/10/06	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	NT

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Well ID	Sample Date	Water Level (Ft.)	Product Thickness (Ft.)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Napthalene (µg/l)	MTBE (µg/l)	EDB (µg/l)	1, 2 DCA (mg/l)	Total Lead (µg/l)
RBSL		**n/a**	**n/a**	**5**	**1,000**	**700**	**10,000**	**n/a**	**25**	**40**	**0.05**	**n/a**	**15**
MW-14	05/28/09	5.66	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	24
MW-15	08/20/02	18.76	--	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL
MW-15	09/25/03	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	3.1
MW-15	04/20/04	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-15	01/25/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	NT
MW-15	07/27/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-15	10/19/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	NT
MW-15	07/10/06	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	NT
MW-15	05/28/09	15.85	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	7
MW-16	08/20/02	5.23	--	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL
MW-16	09/25/03	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	11.0
MW-16	04/20/04	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-16	01/25/05	--	--	<5.0	2.4	<5.0	<5.0	**2.4**	<5.0	<5.0	<0.020	<5.0	NT
MW-16	07/27/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-16	10/19/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	NT
MW-16	07/10/06	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	NT

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Well ID	Sample Date	Water Level (Ft.)	Product Thickness (Ft.)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Napthalene (µg/l)	MTBE (µg/l)	EDB (µg/l)	1, 2 DCA (mg/l)	Total Lead (µg/l)
RBSL		**n/a**	**n/a**	**5**	**1,000**	**700**	**10,000**	**n/a**	**25**	**40**	**0.05**	**n/a**	**15**
MW-16	05/28/09	5.53	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	6
MW-17	08/20/02	8.56	--	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL
MW-17	09/25/03	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0.027	NT	**26.0**
MW-17	04/20/04	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-17	01/25/05	--	--	2.0	<5.0	<5.0	<5.0	**2.0**	<5.0	<5.0	<0.020	**2.5**	NT
MW-17	07/27/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-17	10/19/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	NT
MW-17	07/10/06	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	<5.0	NT
MW-17	05/28/09	6.96	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0	<5.0	2
MW-18D	08/20/02	36.89	--	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	6.0
MW-18D	09/25/03	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0.027	NT	**47.0**
MW-18D	04/20/04	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-18D	01/25/05	--	--	**18**	5.2	<5.0	12	**35**	<5.0	<5.0	0.040	<5.0	NT
MW-18D	07/27/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	NT	NT	NT
MW-18D	10/19/05	--	--	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020	NT	NT
MW-18D	07/10/06	--	--	<5.0	<5.0	<5.0	<5.0	BDL	5.1	<5.0	<0.020	<5.0	NT

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3736 Marsteller Drive, Columbia, South Carolina

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GS2 Project # 09-3114-1

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS (PRIMARY CoC)

Well ID	Sample Date	Water Level (Ft.)	Product Thickness (Ft.)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Napthalene (µg/l)	MTBE (µg/l)	EDB (µg/l)	1, 2 DCA (mg/l)	Total Lead (µg/l)
RBSL		**n/a**	**n/a**	**5**	**1,000**	**700**	**10,000**	**n/a**	**25**	**40**	**0.05**	**n/a**	**15**
MW-19	12/17/08	14.46	0.09	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-19	05/29/09	14.75	0.01	**29,000**	**31,000**	<2500	**13,100**	**73,100**	<2500	<2500	650	<2500	**1040.0**
MW-20	12/12/08	14.26	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-20	05/29/09	13.85	--	**810**	**3,800**	410	3,030	**8,050**	120	<5.0	5	<5.0	**161.0**
MW-21	12/12/08	14.84	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-21	05/29/09	14.75	--	**2,300**	**3,300**	530	2,680	**8,810**	<500	<500	12	<500	**181.0**
MW-22	12/12/08	15.16	0.08	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-22	05/29/09	15.11	--	**5,300**	**17,000**	<2500	**12,000**	**34,300**	<2500	<2500	64	<2500	**1620.0**
MW-23	12/12/08	14.23	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-23	05/29/09	14.65	--	**72**	580	290	1,560	**2,502**	89	<5.0	0	<5.0	**21.2**
MW-24	12/12/08	15.63	0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-24	05/29/09	15.42	1.42	**8,600**	**30,000**	**3,400**	**18,600**	**60,600**	<2500	<2500	133	<2500	**447.0**
MW-25	12/12/08	14.44	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-25	05/29/09	14.12	--	**1,500**	**9,100**	**1,800**	8,400	**20,800**	<500	<500	4	<500	**84.3**
MW-26	12/12/08	16.73	0.80	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-26	05/27/09	15.94	0.51	**6,500**	**6,900**	**2,200**	7,800	**23,400**	**690**	**470**	43	72	**99.1**

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Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, South Carolina

SCDHEC Site ID # 07359
GS2 Project # 09-3114-1

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS (PRIMARY CoC)

Well ID	Sample Date	Water Level (Ft.)	Product Thickness (Ft.)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Napthalene (µg/l)	MTBE (µg/l)	EDB (µg/l)	1, 2 DCA (mg/l)	Total Lead (µg/l)
RBSL		**n/a**	**n/a**	**5**	**1,000**	**700**	**10,000**	**n/a**	**25**	**40**	**0.05**	**n/a**	**15**
MW-27	12/12/08	15.01	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-27	05/29/09	15.65	--	**9,300**	**11,000**	**1,100**	5,600	**27,000**	**350**	<250	190	<250	**242.0**

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Job Name: Former Columbia Maintanance
Job Number: 09-3114-1

Date Performed: 5.27/28/29
Site ID Number: 07359

PRODUCT BAIL DOWN TEST FORM

Well ID: MW-26
Initial Product Level: 15.48'
Initial Water Level: 15.94'
Product Thickness: 0.51'

Time	E-Time	Product Level	Water Level	Product Thickness
2:45p	0	NM	NM	0.01'
3:00p	0:15	15.64'	15.79'	0.15'
3:15p	0:30	15.60'	15.74'	0.14'
3:30p	0:45	15.59'	15.72'	0.13'
3:45p	1:00	15.58'	15.70'	0.12'
4:00p	1:15	15.55'	15.68'	0.13'
4:15p	1:30	15.53'	15.66'	0.13'
4:30p	1:45	15.52'	15.65'	0.13'
5:00p	2:15	15.50'	15.63'	0.13'
5:30p	2:45	15.48'	15.62'	0.14'
6:00p	3:15	15.47'	15.61'	0.14'
6:30p	3:45	15.46'	15.60'	0.14'
2:15p	23:30	15.39'	15.65'	0.26'

Gallons Removed: 5

Well ID: MW-24
Initial Product Level: 14.00'
Initial Water Level: 15.42'
Product Thickness: 1.42'

Time	E-Time	Product Level	Water Level	Product Thickness
11:00a	0	NM	NM	0.01'
11:15a	0:15	14.41'	14.61'	0.20'
11:30a	0:30	14.42'	14.64'	0.22'
11:45a	0:45	14.40'	14.62'	0.22'
12:00p	1:00	14.39'	14.60'	0.21'
12:15p	1:15	14.38'	14.58'	0.20'
12:30p	1:30	14.36'	14.55'	0.19'
12:45p	1:45	14.36'	14.55'	0.19'
1:00p	2:00	14.36'	14.55'	0.19'

Gallons Removed: 8

GS2
ENGINEERING & ENVIRONMENTAL CONSULTANTS INC

Job Name: Former Columbia Maintanance
Job Number: 09-3114-1

Date Performed: 5/29/09
Site ID Number: 07359

PRODUCT BAIL DOWN TEST FORM

Well ID: MW-36
Initial Product Level: 14.96'
Initial Water Level: 17.21'
Product Thickness: 2.25'

Time	E-Time	Product Level	Water Level	Product Thickness
11:40a	0	16.02'	17.62'	1.60'
12:00p	0:20	15.31'	17.45'	2.14'
12:41	0:41	15.21'	18.79'	3.58'

Gallons Removed: 15 gallons bailed in 20 minutes

Well ID:
Initial Product Level:
Initial Water Level:
Product Thickness:

Time	E-Time	Product Level	Water Level	Product Thickness

Gallons Removed:

GS2
ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC

TABLE 10

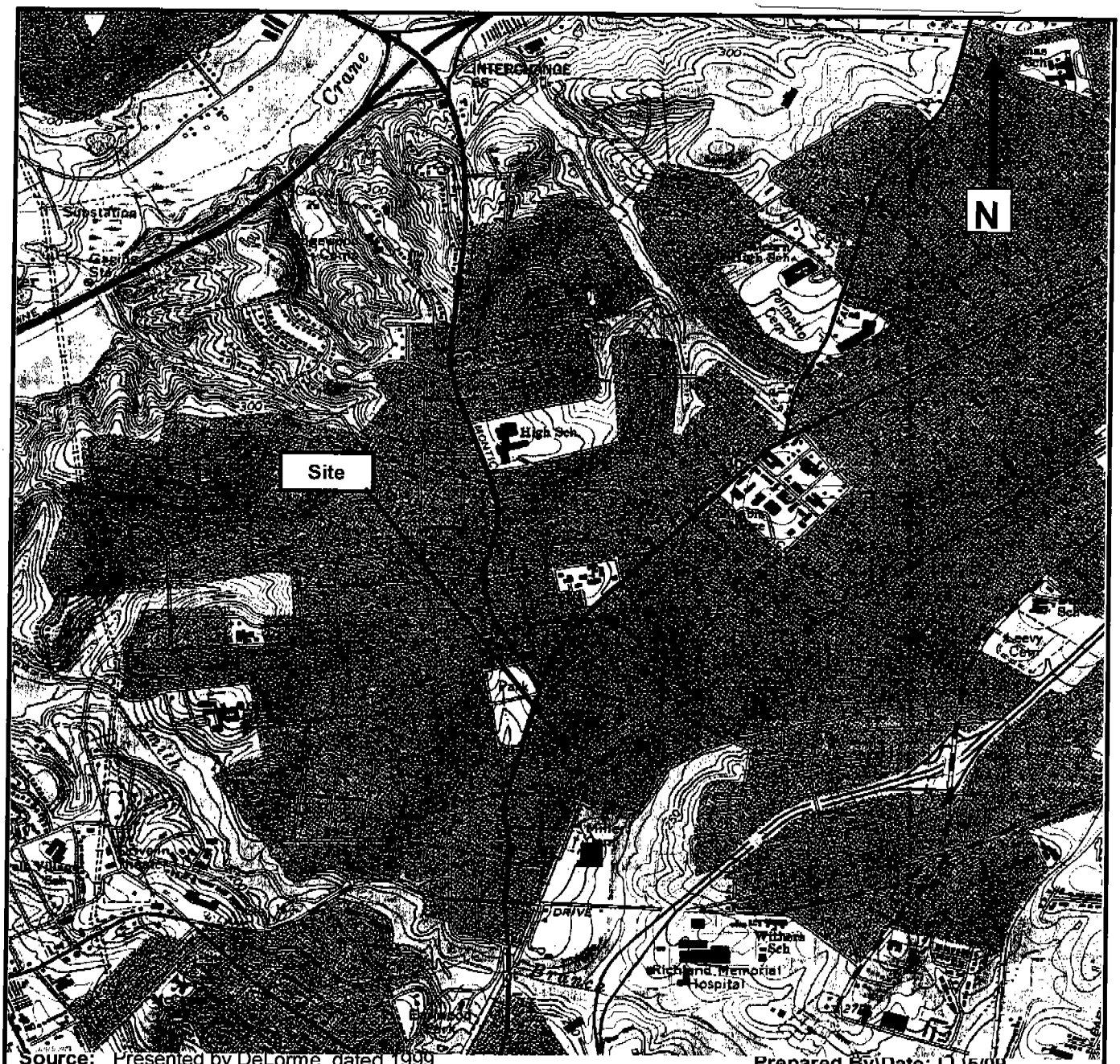
Former SCDOT Columbia Maintenance Facility
3736 Marsteller Drive, Columbia, SC

SITE ID# 07359
GS2 Project# 09-3114-1

TAX MAP INFORMATION

Tax Map Number	Owner	Owner Address	City	State	Zip Code	Wells on Property
R09213-04-07	SILVER SPUR PROPERTIES LLC	PO BOX 117	COLUMBIA	SC	29203	YES
	Subject Site where MW-1 to MW-14, MW-18D to MW-49, and DW-1 to DW-6 are located.					
R09213-02-10	SILVER SPUR PROPERTIES LLC	PO BOX 117	COLUMBIA	SC	29202	YES
	Located North of subject site and contains MW-12.					
R09213-04-11	HOUSING OF AUTHORITY /CITY	1917 HARDEN ST	COLUMBIA	SC	29204	YES
	Located East of RR Tracks & contains MW-14 to MW-17.					
R09213-04-04	LITTLE FIVE POINTS, INC.	1306 ELMORE ST	COLUMBIA	SC	29203	NO
R09213-04-06	QUAKER CHEMICAL CO. INC.	1212 ELMORE ST	COLUMBIA	SC	29203	NO
R09213-07-06	BARBARA ANN KRONRAD	PO BOX 135	COLUMBIA	SC	29202	NO
R09213-01-25	JJ PROPETY MANAGEMENT, INC	17 MORNING BREEZE CT	CHAPIN	SC	29036	NO
R09213-02-08	JJ PROPERTY MANAGEMENT, INC	1929 MARION ST	COLUMBIA	SC	29201	NO
R09213-02-07	SCDOT	955 PARK ST	COLUMBIA	SC	29202	NO
R09213-02-06	ALTHEA C. HOUSER & TODD	3805 GLENDON RD	COLUMBIA	SC	29203	NO
R09213-01-14	TALLEY EULALIA	1303 ELMORE ST	COLUMBIA	SC	29203	YES
	Located West of the subject site and contains MW-11.					
R09213-01-13	Owner or address not listed	Property address is 1218 Marsteller St.	COLUMBIA	SC	29203	NO

Notes: See Figure 2 for reference Map.



Source: Presented by DeLorme, dated 1999.

Prepared By\Date: LL\5/09
Checked By\Date: PL\5/09

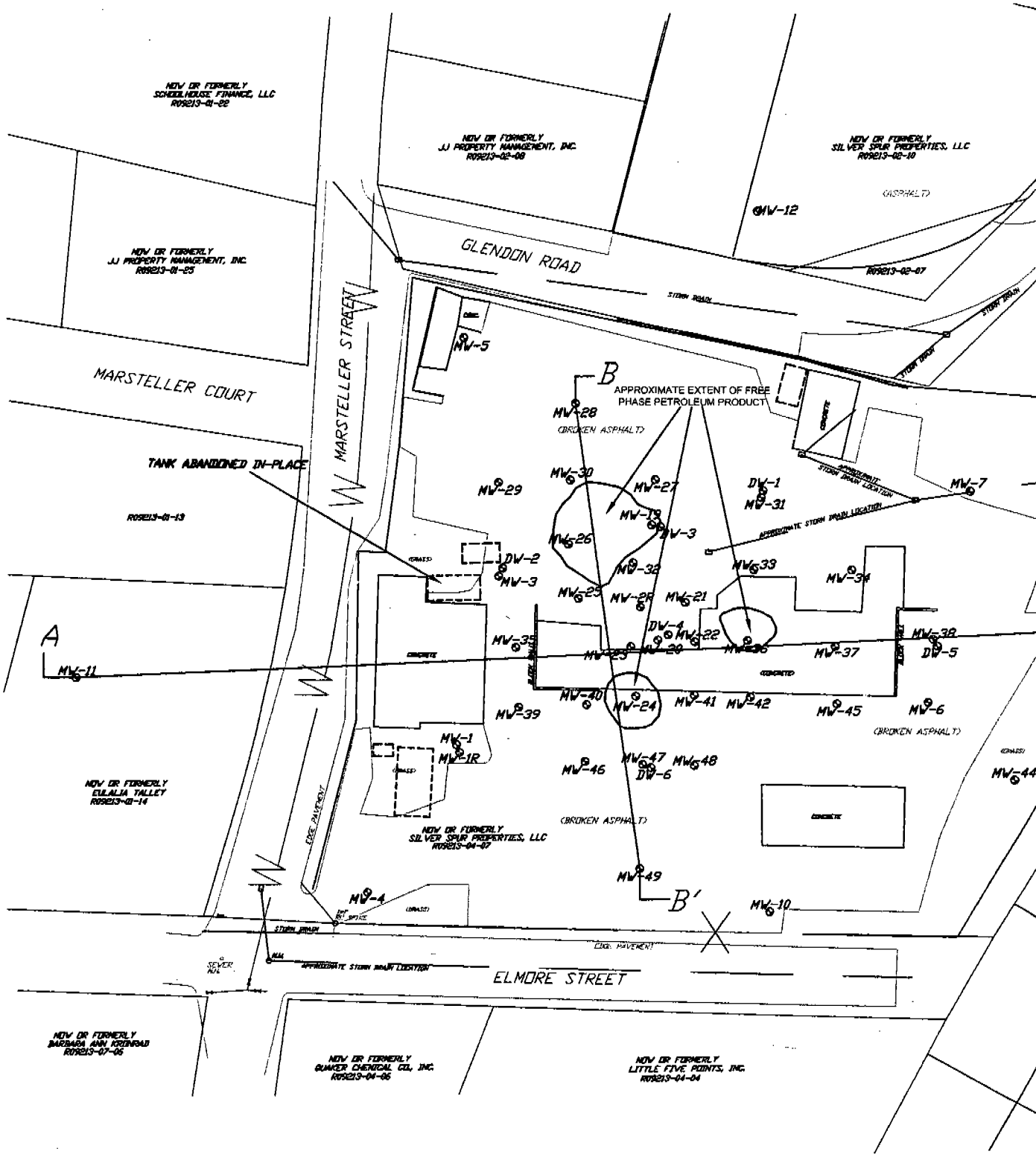
GS2

Site Location Map
Fmr. SCDOT Columbia Maintenance Facility
3736 Marsteller Drive
Columbia, SC

SCDHEC Bureau of Land & Waste Management
2600 Bull Street
Columbia, SC 29201

Scale
1 inch = 2000 feet

Figure 1



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GRAPHIC SCALE – FEET

NOTES: Deep Well results no

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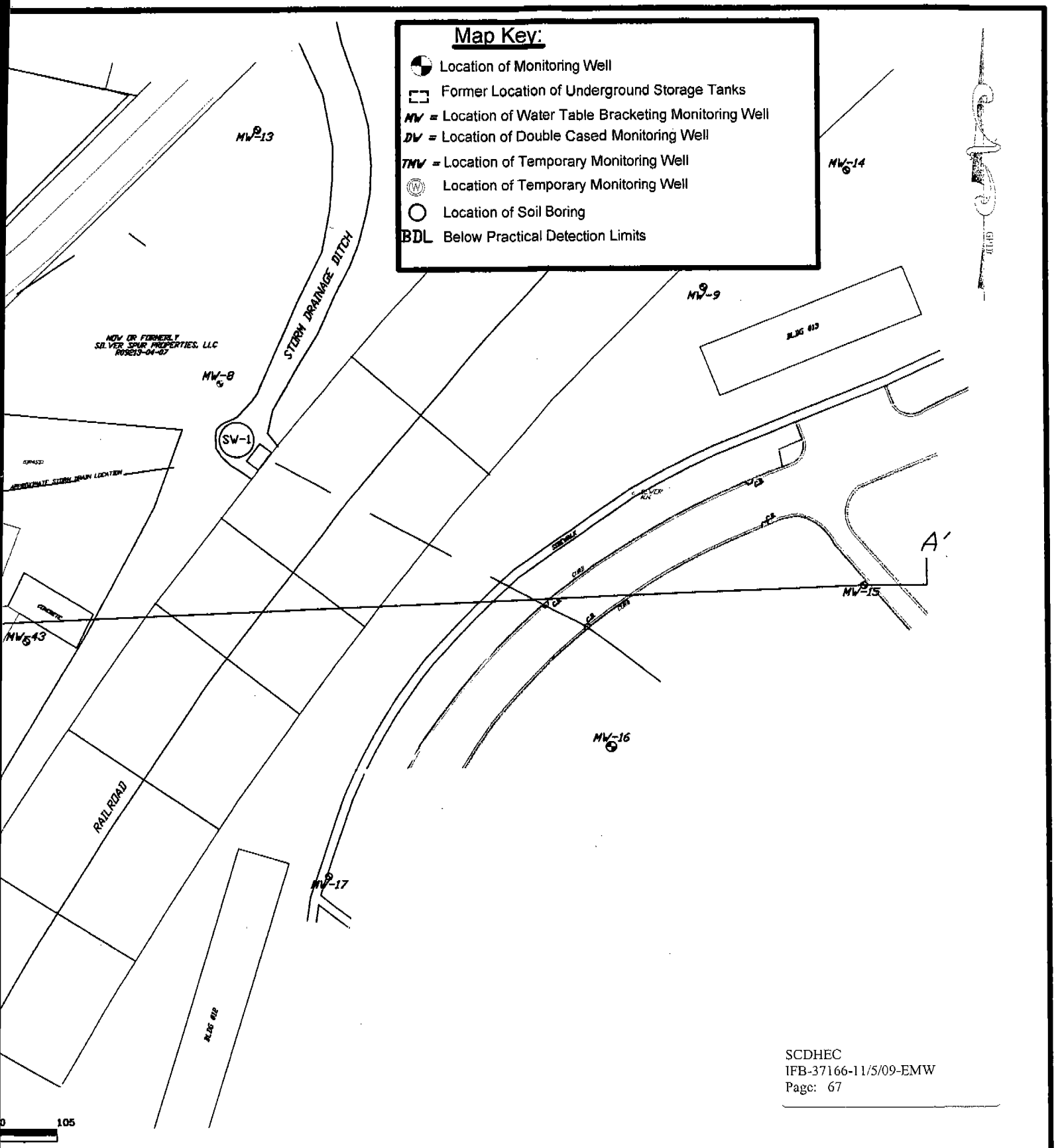
CONSULTANTS,



SCDHEC
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Page: 67

t included in Isopleth Maps

SOURCE: Based on GS2 Field notes and RLS survey by Jennison Weed Surveyors dated June 3, 2009

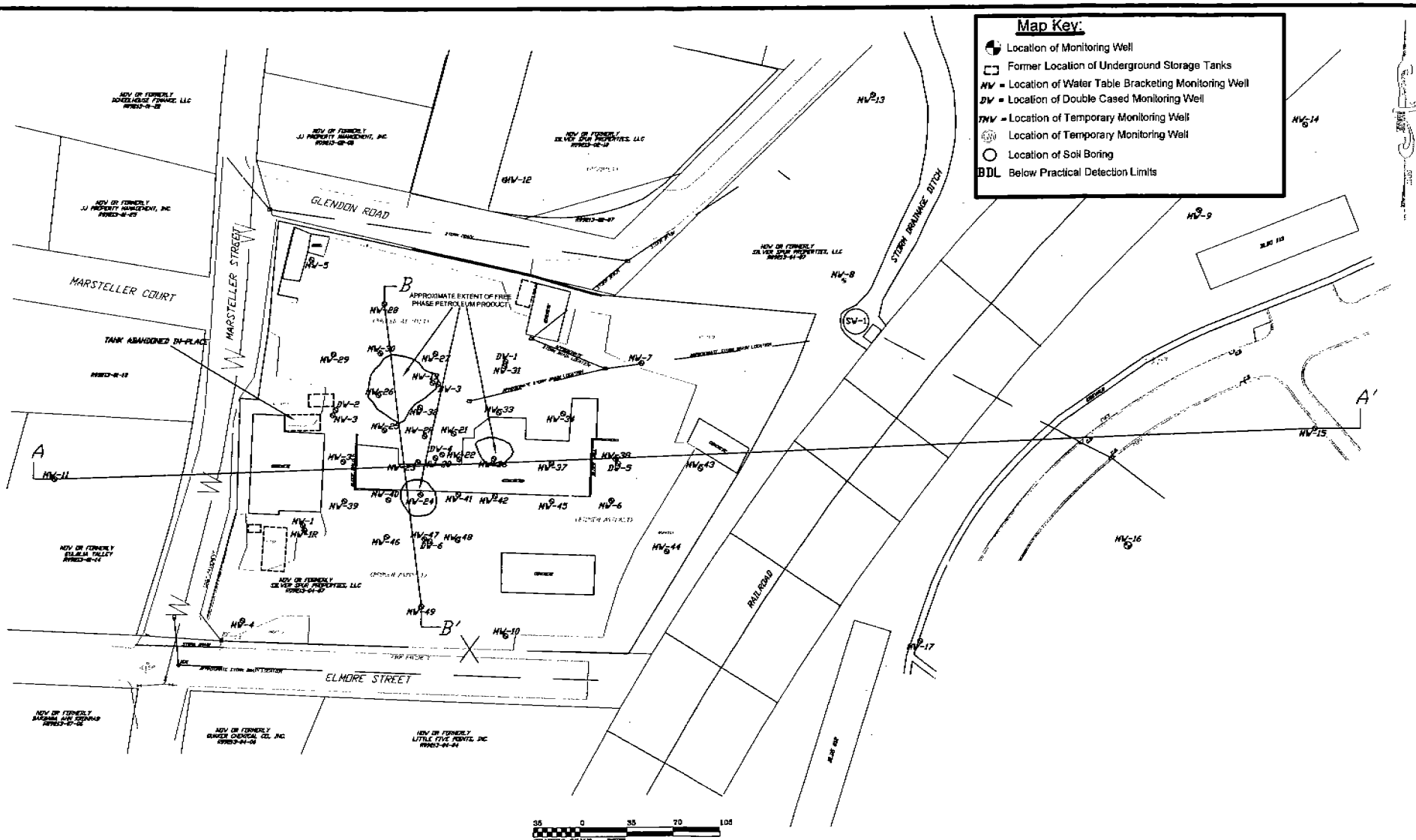
ONMENTAL
NC.

FMR. SCDOT COLUMBIA MAINTENANCE FACILITY
3736 MARSTELLER DRIVE,
COLUMBIA, SC
SCDHEC FACILITY ID # 07359
GS2 Job Number 09-3114-1

Base Map

SCALE:	
DATE:	07-27-09
DRAWN BY:	LHL
CHECKED BY:	PWL

FIGURE 3



NOTES: Deep Well results not included in Isopleth Maps

SOURCE: Based on GS2 Field notes and RLS survey by Jennison Weed Surveyors dated June 3, 2009

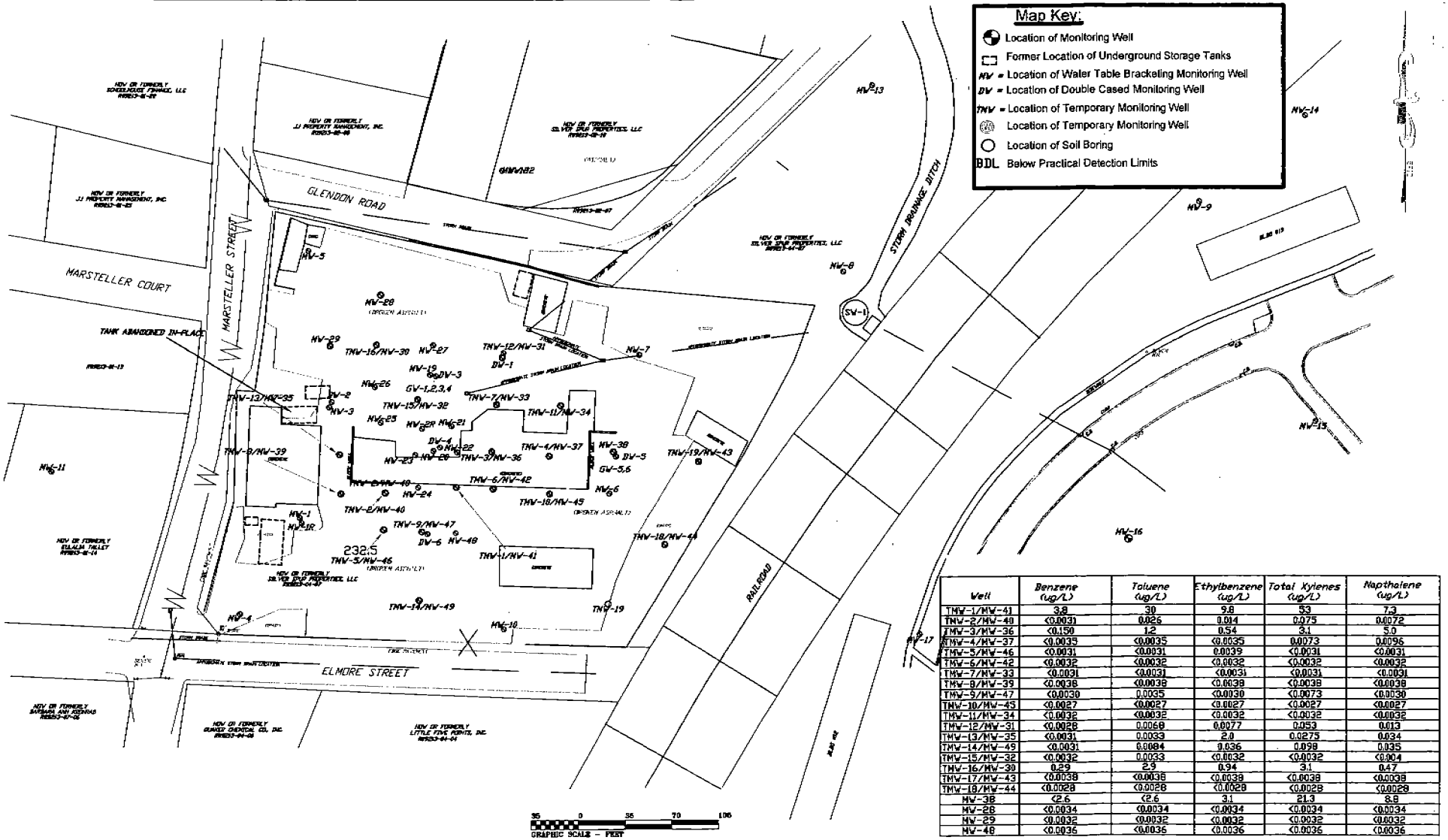
GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

FMR. SCDOT COLUMBIA MAINTENANCE FACILITY
3736 MARSTELLER DRIVE,
COLUMBIA, SC
SCDHEC FACILITY ID # 07359
GS2 Job Number 09-3114-1

Base Map

SCALE:	
DATE:	07-27-09
DRAWN BY:	LHL
CHECKED BY:	PWL

FIGURE 3



Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Napthalene (ug/L)
TMW-1/MW-41	3.8	30	9.8	53	7.3
TMW-2/MW-40	<0.0031	0.026	0.014	0.075	0.0072
TMW-3/MW-36	<0.150	12	0.54	3.1	5.0
TMW-4/MW-37	<0.0035	<0.0035	<0.0035	0.0073	0.0096
TMW-5/MW-46	<0.0031	<0.0031	0.0039	<0.0031	<0.0031
TMW-6/MW-42	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032
TMW-7/MW-33	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031
TMW-8/MW-39	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038
TMW-9/MW-47	<0.0030	0.0035	<0.0030	<0.0073	<0.0030
TMW-10/MW-45	<0.0027	<0.0027	<0.0027	<0.0027	<0.0027
TMW-11/MW-34	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032
TMW-12/MW-31	<0.0028	0.0060	0.0077	0.053	0.013
TMW-13/MW-35	<0.0031	0.0033	2.0	0.0275	0.034
TMW-14/MW-45	<0.0031	0.0084	0.036	0.098	0.035
TMW-15/MW-32	<0.0032	0.0033	<0.0032	<0.0032	<0.004
TMW-16/MW-30	0.29	2.9	0.94	3.1	0.47
TMW-17/MW-43	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038
TMW-18/MW-44	<0.0028	<0.0028	<0.0028	<0.0028	<0.0028
MW-38	<2.6	<2.6	31	21.3	5.8
MW-28	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034
MW-29	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032
MW-48	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036

NOTES: Deep Well results not included in Isopleth Maps

SOURCE: Based on GS2 Field notes and RLS survey by Jennison Weed Surveyors dated June 3, 2009

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

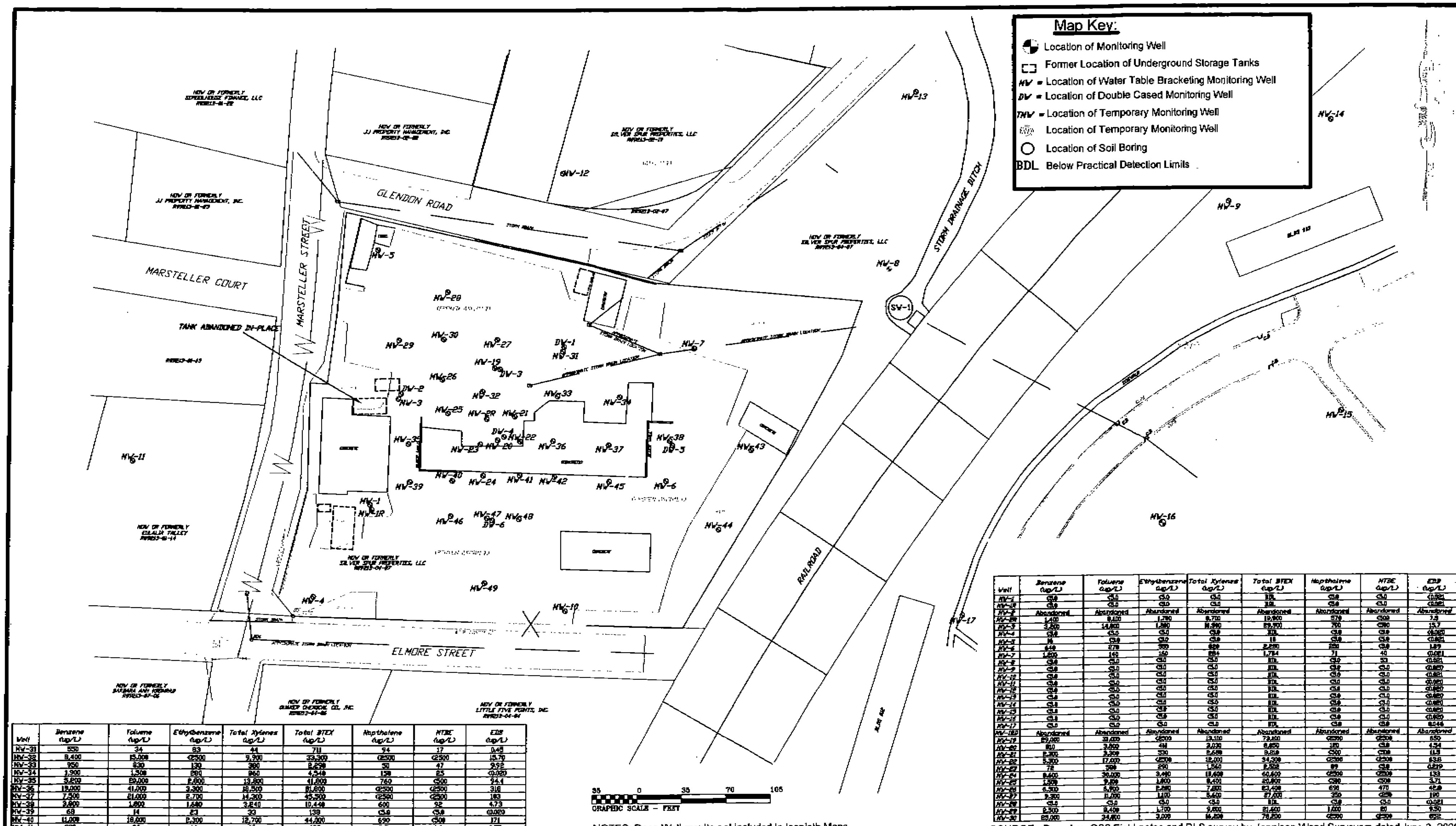
FMR. SCDOT COLUMBIA MAINTENANCE FACILITY
3736 MARSTELLER DRIVE,
COLUMBIA, SC
SCDHEC FACILITY ID # 07359
GS2 Job Number 09-3114-1

Soil CoC MAP

SCALE:	
DATE:	07-27-09
DRAWN BY:	LHL
CHECKED BY:	PWL

FIGURE 4

SCDHEC
IFB-37166-11/5/09-EMW
Page: 69



Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-2	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-2R	1,400	8,100	1,700	8,700	19,900	570	<500	7.9
MW-3	3,200	14,800	1,880	10,300	29,900	700	<500	15.7
MW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-5	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.021
MW-6	640	270	550	820	2,280	220	<5.0	1.89
MW-7	1,600	140	160	884	1,784	71	40	<0.021
MW-8	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	53	<0.021
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-12	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-13	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-14	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-15	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-17	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0.046
MW-18D	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-19	29,000	31,000	<2500	13,100	73,100	<2500	<2500	650
MW-20	800	3,800	44	2,030	6,650	180	<5.0	4.54
MW-21	2,300	3,300	530	2,680	8,810	<500	<500	11.5
MW-22	5,300	17,000	<2500	12,000	34,300	<2500	<2500	63.8
MW-23	72	580	290	1,560	2,502	89	<5.0	0.219
MW-24	8,600	30,000	3,400	18,400	60,400	<2500	<2500	133
MW-25	1,500	9,100	1,800	8,400	20,800	<500	<500	3.71
MW-26	6,500	6,800	2,580	7,600	23,400	690	470	42.8
MW-27	9,300	11,000	1,100	5,600	27,000	350	<250	190
MW-28	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-29	2,500	8,400	1,700	9,800	21,400	1,000	80	9.50
MW-30	25,000	34,800	3,000	16,200	78,200	<2500	<2500	652

Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-31	550	34	83	44	711	94	17	0.45
MW-32	8,400	15,000	<2500	9,900	33,300	<2500	<2500	15.70
MW-33	950	830	130	380	2,290	50	47	9.92
MW-34	1,900	1,500	280	860	4,540	150	25	<0.020
MW-35	5,200	20,000	2,800	13,800	41,800	760	<500	94.4
MW-36	19,000	41,000	3,300	18,500	81,800	<2500	<2500	318
MW-37	7,500	21,000	2,700	14,300	45,500	<2500	<2500	183
MW-38	3,800	1,800	1,640	3,240	10,440	600	92	4.73
MW-39	68	14	23	33	138	<5.0	<5.0	<0.020
MW-40	11,000	18,000	2,300	12,700	44,000	690	<500	171
MW-41	380	26	14	62	482	8.8	6.6	0.73
MW-42	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-43	6,100	12,000	1,600	6,900	26,600	570	49	372
MW-44	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-45	150	120	170	579	1,010	120	<5.0	8.64
MW-46	3,000	4,400	400	2,290	10,090	60	11	36.1
MW-47	200	290	180	470	1,130	77	<5.0	0.229
MW-48	190	<5.0	<5.0	<5.0	190	16	<5.0	<0.021
MW-49	<5.0	<5.0	<5.0	<5.0	BDL	16	<5.0	<0.021
DW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-2	15	97	34	234	380	34	<5.0	0.029
DW-3	<5.0	7.0	<5.0	9.6	16.6	8.0	<5.0	<0.020
DW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-5	8.9	48	34	163	253.9	1400	<5.0	0.038
DW-6	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
SV-1	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.020

NOTES: Deep Well results not included in Isopleth Maps

SOURCE: Based on GS2 Field notes and RLS survey by Jennison Weed Surveyors dated June 3, 2009

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

FMR. SCDOT COLUMBIA MAINTENANCE FACILITY
3736 MARSTELLER DRIVE,
COLUMBIA, SC
SCDHEC FACILITY ID # 07359
GS2 Job Number 09-3114-1

GROUNDWATER ANALYTICAL SUMMARY MAP

SCALE:	
DATE:	07-27-09
DRAWN BY:	LHL
CHECKED BY:	PWL

FIGURE 5

SCDHEC
IFB-37166-11/5/09-EMW
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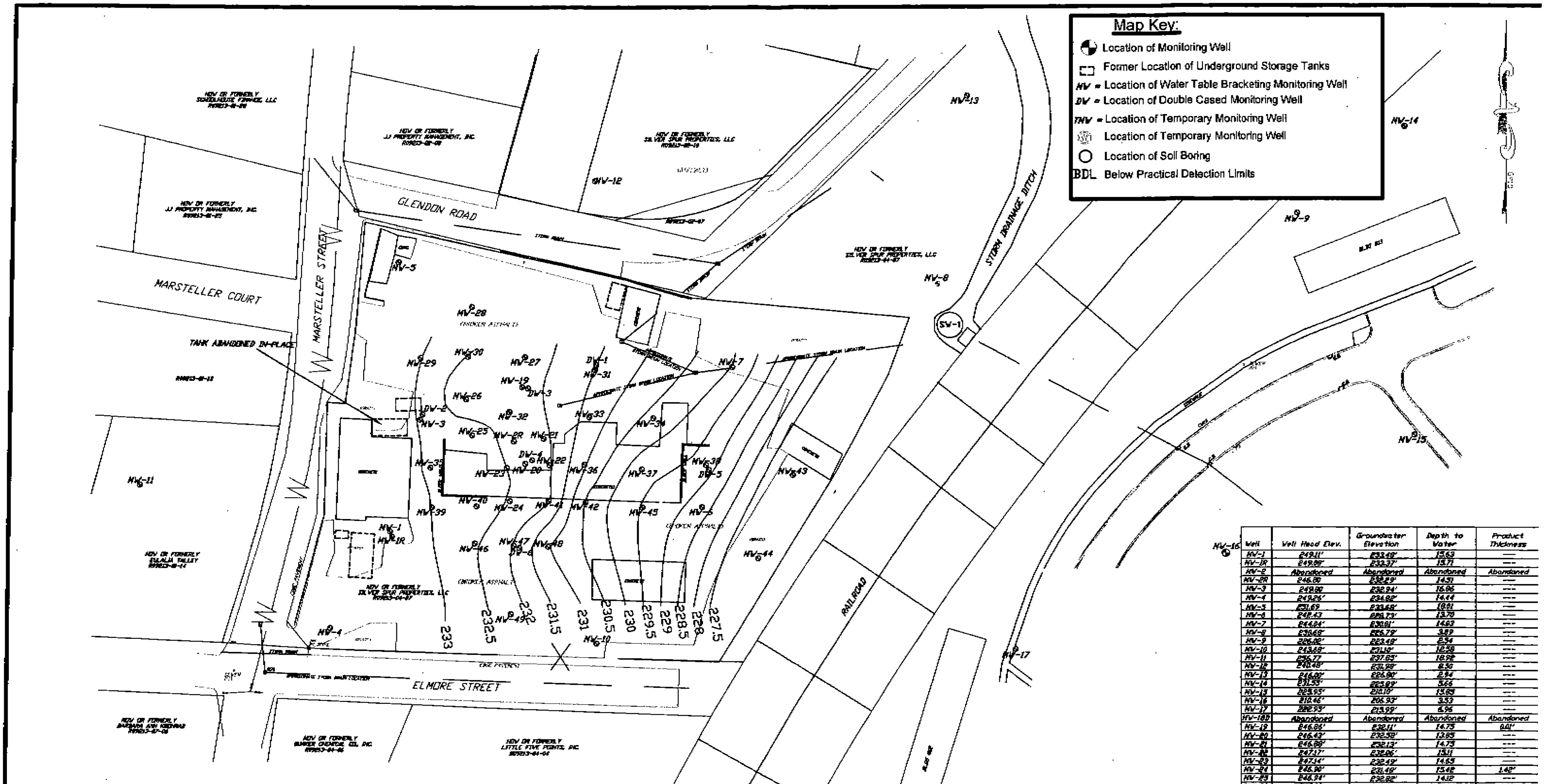


Well	Well Head Elev.	Groundwater Elevation	Depth to Water	Product Thickness
MW-1	249.11'	233.48'	15.63	---
MW-1R	249.08'	233.37'	15.71	---
MW-2	Abandoned	Abandoned	Abandoned	Abandoned
MW-2R	246.80	232.29'	14.51	---
MW-3	249.80	232.94'	16.86	---
MW-4	249.26'	234.82'	14.44	---
MW-5	251.69	233.68'	18.01	---
MW-6	242.43	228.73'	13.70	---
MW-7	244.84'	230.81'	14.03	---
MW-8	230.68'	226.79'	3.89	---
MW-9	226.02'	223.48'	2.54	---
MW-10	243.68'	231.10'	12.58	---
MW-11	256.77	237.85'	18.92	---
MW-12	240.48'	231.98'	8.50	---
MW-13	216.00'	226.80'	2.94	---
MW-14	231.55'	225.89'	5.66	---
MW-15	225.95'	210.10'	15.85	---
MW-16	210.46'	206.93'	3.53	---
MW-17	222.95'	215.99'	6.96	---
MW-18R	Abandoned	Abandoned	Abandoned	Abandoned
MW-19	246.86'	232.11'	14.75	0.01'
MW-20	246.43'	232.58'	13.85	---
MW-21	246.88'	232.13'	14.75	---
MW-22	247.17'	232.06'	15.11	---
MW-23	247.14'	232.49'	14.65	---
MW-24	246.90'	231.48'	15.42	1.42'
MW-25	246.94'	232.82'	14.12	---
MW-26	248.00'	232.06'	15.94	0.51'
MW-27	247.91'	232.26'	15.65	---
MW-28	250.17'	232.81'	17.36	---
MW-29	250.87'	233.02'	17.85	---
MW-30	249.29'	232.49'	16.80	---
MW-31	248.10	231.95'	16.15	---
MW-32	247.48'	232.33'	15.15	---
MW-33	246.58'	231.67'	14.91	---
MW-34	246.00'	231.28'	14.72	---

Well	Well Head Elev.	Groundwater Elevation	Depth to Water	Product Thickness
MW-35	249.39'	232.89'	16.50	---
MW-36	247.26'	230.05'	17.21	2.25'
MW-37	247.26'	229.69'	17.57	---
MW-38	243.17'	229.28'	13.89	---
MW-39	249.10'	232.98'	16.12	---
MW-40	247.67'	232.83'	14.84	---
MW-41	246.97'	232.14'	14.83	---
MW-42	246.72'	230.36'	16.36	---
MW-43	240.06'	226.57'	13.49	---
MW-44	240.77'	226.42'	14.35	---
MW-45	246.55'	229.46'	17.09	---
MW-46	246.88'	232.54'	14.34	---
MW-47	246.29'	231.78'	14.51	---
MW-48	245.36'	231.00'	14.36	---
MW-49	245.57'	232.28'	13.29	---
DW-1	248.53	231.67	16.86	---
DW-2	250.16	232.37	17.79	---
MW-3	247.45	210.37	37.08	---
DW-4	249.26	233.16	16.10	---
DW-5	243.27	226.60	16.67	---
DW-6	246.26	229.41	16.85	---

NOTES: Deep Well results not included in Isopleth Maps

SOURCE: Based on GS2 Field notes and RLS survey by Jennison Weed Surveyors dated June 3, 2009

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

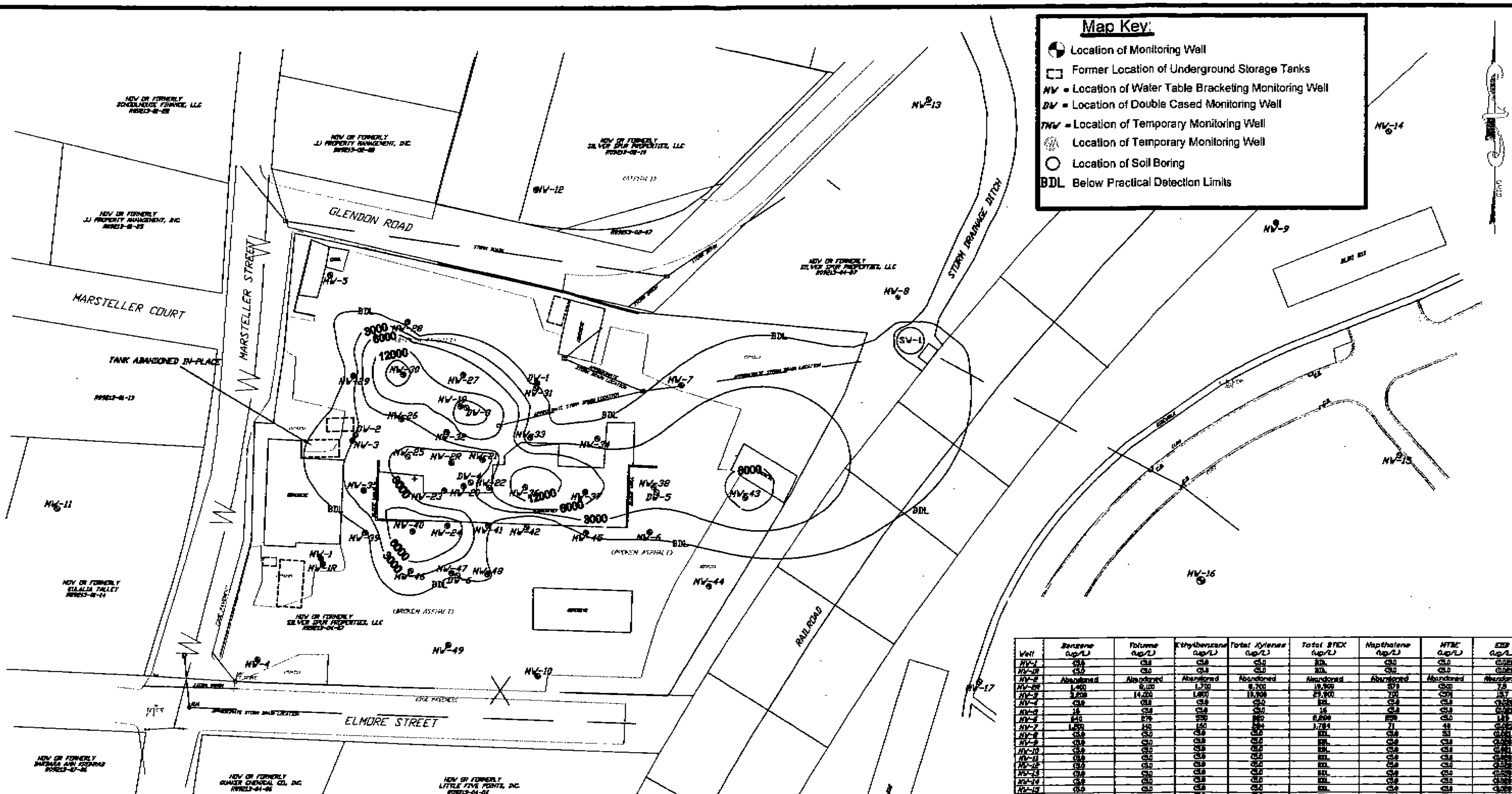
FMR. SCDOT COLUMBIA MAINTENANCE FACILITY
3736 MARSTELLER DRIVE,
COLUMBIA, SC
SCDHEC FACILITY ID # 07359
GS2 Job Number 09-3114-1

Groundwater Contour Map

SCALE:	
DATE:	07-27-09
DRAWN BY:	LHL
CHECKED BY:	PWL

FIGURE 6

SCDHEC
IFB-37166-11/5/09-EMW
Page: 71



Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-31	550	34	83	44	711	34	17	0.45
MW-32	8,400	13,800	<2500	9,900	33,300	<2500	<2500	19.70
MW-33	950	830	130	380	2,820	58	47	9.92
MW-34	1,900	1,500	280	860	4,540	150	29	<0.020
MW-35	5,200	20,000	2,800	13,800	41,800	760	<500	94.4
MW-36	19,000	41,600	3,300	18,300	81,880	<2500	<2500	318
MW-37	7,500	21,800	2,700	14,300	45,500	<2500	<2500	103
MW-38	3,800	1,800	1,600	3,240	10,440	600	92	4.73
MW-39	68	14	23	33	138	<5.0	<5.0	<0.020
MW-40	11,000	18,000	2,300	12,700	44,000	690	<500	171
MW-41	380	86	14	62	482	8.8	6.6	6.79
MW-42	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-43	6,100	12,000	1,600	6,900	26,600	570	49	37.2
MW-44	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-45	150	120	170	570	1,010	120	<5.0	0.64
MW-46	3,000	4,400	400	2,290	10,090	60	11	36.1
MW-47	200	280	180	470	1,130	77	<5.0	0.229
MW-48	190	<5.0	<5.0	<5.0	190	16	<5.0	<0.021
MW-49	<5.0	<5.0	<5.0	<5.0	BDL	16	<5.0	<0.021
DW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-2	15	97	24	234	380	34	<5.0	0.029
DW-3	<5.0	7.0	<5.0	9.6	16.6	8.0	<5.0	<0.020
DW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-5	8.9	49	34	163	253.9	1400	<5.0	0.039
DW-6	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
SV-1	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.020

Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-2	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-2R	1,400	8,100	1,700	8,700	19,900	371	<500	7.8
MW-3	3,200	14,000	1,600	10,900	29,900	700	<500	15.7
MW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-5	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.021
MW-6	140	270	530	860	6,890	270	<5.0	1.85
MW-7	1,500	140	150	264	1,784	71	40	<0.021
MW-8	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	53	<0.021
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-12	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-13	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-14	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-15	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-17	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0.046
MW-18D	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-19	29,000	31,000	<2500	13,100	73,100	<2500	<2500	850
MW-20	610	3,800	410	3,050	8,050	180	<5.0	4.34
MW-21	2,200	3,300	530	2,480	8,810	<500	<500	11.9
MW-22	3,300	17,000	<2500	18,000	34,300	<2500	<2500	63.8
MW-23	72	580	290	1,560	2,502	81	<5.0	0.819
MW-24	6,680	30,400	3,400	19,400	60,450	<2500	<2500	133
MW-25	1,500	9,110	1,800	8,440	20,800	<500	<500	3.71
MW-26	6,300	6,300	2,800	7,890	23,400	630	471	42.8
MW-27	7,300	11,800	1,100	5,400	27,000	350	<250	190
MW-28	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-29	2,550	8,400	1,700	9,000	21,600	1,400	88	9.50
MW-30	25,000	34,000	3,099	16,200	78,200	<2500	<2500	852

SOURCE: Based on GS2 Field notes and RLS survey by Jennison Weed Surveyors dated June 3, 2009

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

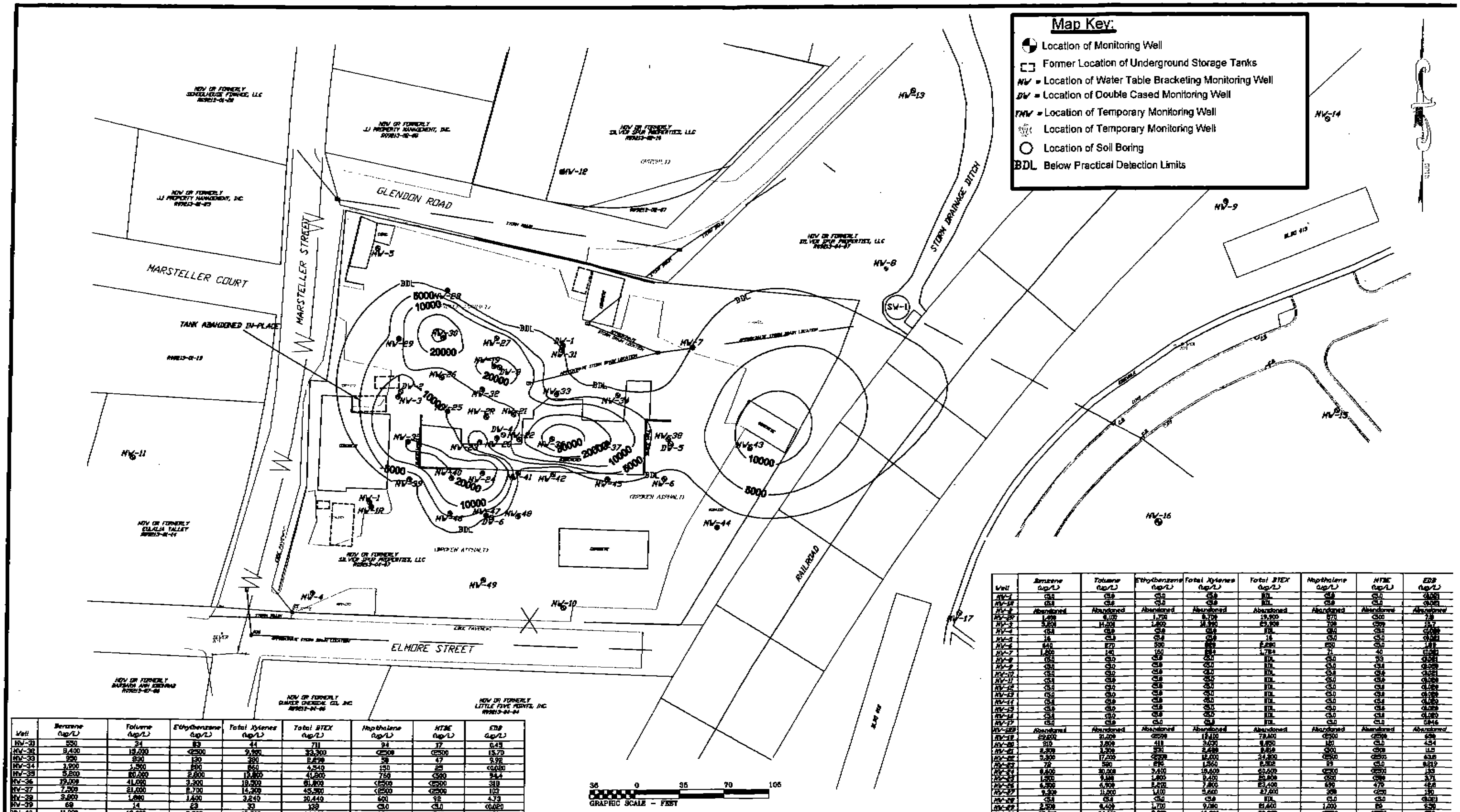
FMR. SCDOT COLUMBIA MAINTENANCE FACILITY
3736 MARSTELLER DRIVE,
COLUMBIA, SC
SCDHEC FACILITY ID # 07359
GS2 Job Number 09-3114-1

BENZENE
ISOPLETH MAP

SCALE:	
DATE:	07-27-09
DRAWN BY:	LHL
CHECKED BY:	PWL

FIGURE 7

SCDHEC
IFB-37166-11/5/09-EMW
Page: 72



NOTES: Deep Well results not included in Isopleth Maps

Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-31	550	34	83	44	711	94	17	0.43
MW-32	8,400	19,000	<2500	9,900	33,300	<2500	<2500	15.70
MW-33	950	930	130	390	2,450	59	47	9.92
MW-34	1,900	1,500	280	860	4,540	150	25	<0.020
MW-35	5,200	20,000	2,800	13,800	41,800	760	<500	94.4
MW-36	19,000	41,000	3,300	18,500	81,800	<2500	<2500	318
MW-37	7,500	21,000	2,700	14,300	45,500	<2500	<2500	103
MW-38	3,800	1,800	1,400	3,240	10,440	690	92	4.73
MW-39	69	14	23	33	139	<5.0	<5.0	<0.020
MW-40	11,000	18,000	2,300	12,700	44,000	690	<500	171
MW-41	380	26	14	62	482	8.8	6.6	0.75
MW-42	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-43	6,100	12,000	1,600	6,900	26,600	570	49	37.2
MW-44	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-45	150	120	170	570	1,010	180	<5.0	0.64
MW-46	3,000	4,400	400	2,290	10,090	60	11	36.1
MW-47	200	880	180	470	1,130	77	<5.0	0.228
MW-48	190	<5.0	<5.0	<5.0	190	16	<5.0	<0.021
MW-49	<5.0	<5.0	<5.0	<5.0	BDL	16	<5.0	<0.021
DV-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DV-2	15	97	24	234	390	34	<5.0	0.069
DV-3	<5.0	7.0	<5.0	9.6	16.6	8.0	<5.0	<0.020
DV-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DV-5	8.9	49	34	163	253.9	1400	<5.0	0.038
DV-6	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
SV-1	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.020

Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-2	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-2R	1,400	6,100	1,700	8,700	19,900	570	<500	7.8
MW-3	5,600	14,000	1,400	18,900	39,900	700	<500	15.7
MW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-5	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.021
MW-6	640	870	330	850	2,690	650	<5.0	1.81
MW-7	1,200	140	160	284	1,784	71	40	0.062
MW-8	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	53	<0.021
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-12	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-13	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-14	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-15	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-17	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0.046
MW-18	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-19	29,000	21,000	<2500	19,400	79,400	<2500	<2500	690
MW-20	810	3,800	410	3,030	8,050	120	<5.0	4.54
MW-21	2,300	3,300	330	2,480	8,410	<500	<500	11.5
MW-22	5,300	17,000	<2500	12,000	34,300	<2500	<2500	63.8
MW-23	72	580	890	1,560	2,502	89	<5.0	0.219
MW-24	8,400	30,000	3,400	19,600	60,600	<2500	<2500	133
MW-25	1,500	9,400	1,800	9,400	20,800	<500	<500	3.71
MW-26	6,500	6,900	2,600	7,400	23,400	690	470	48.8
MW-27	9,300	11,000	1,400	5,600	27,600	300	<250	130
MW-28	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-29	2,500	8,400	1,700	9,000	21,600	1,000	89	9.50
MW-30	25,000	34,600	3,000	16,200	78,800	<2500	<2500	852

SOURCE: Based on GS2 Field notes and RLS survey by Jennison Weed Surveyors dated June 3, 2009

GS2
ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

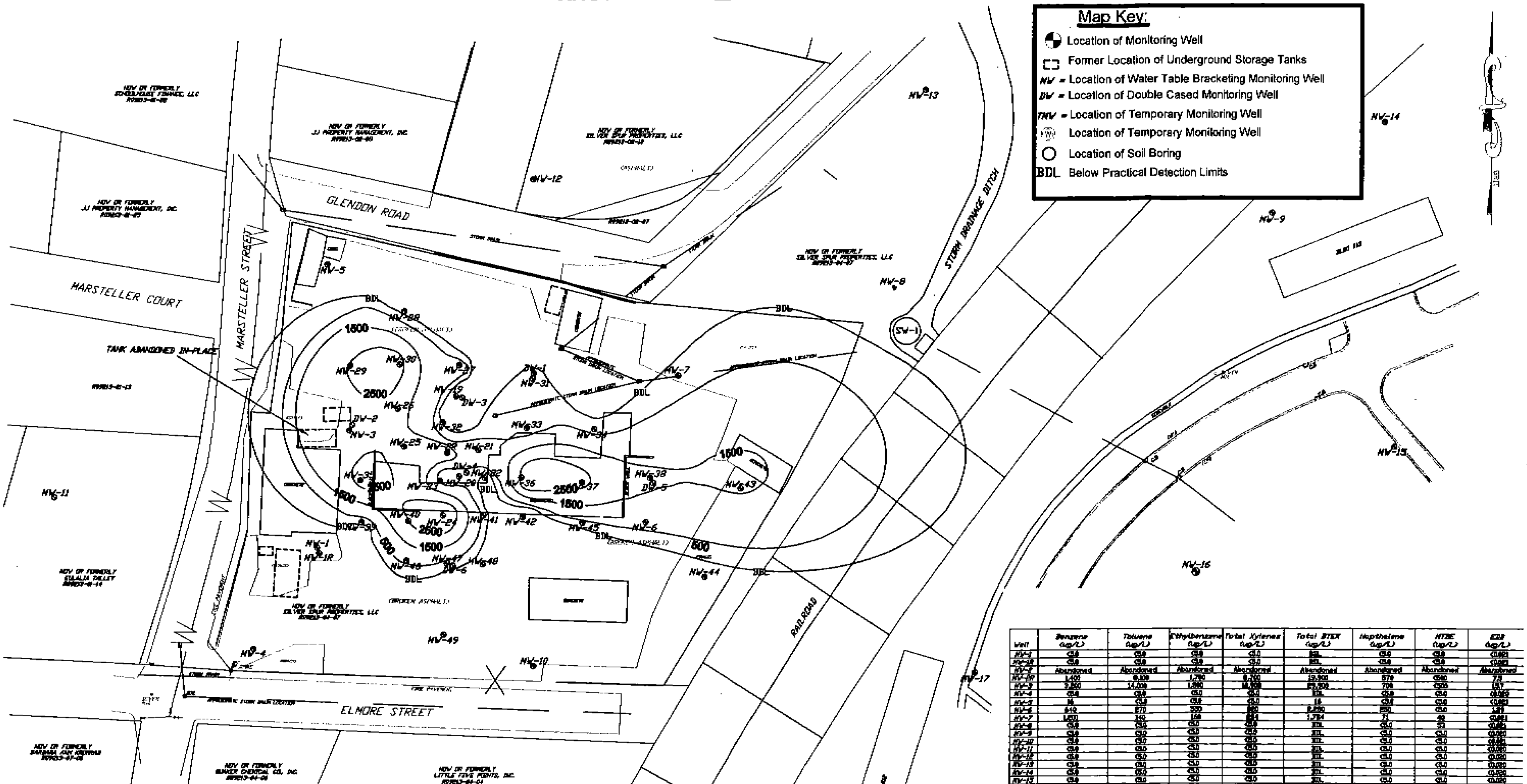
FMR. SCDOT COLUMBIA MAINTENANCE FACILITY
3736 MARSTELLER DRIVE,
COLUMBIA, SC
SCDHEC FACILITY ID # 07359
GS2 Job Number 09-3114-1

TOLUENE
ISOPLETH MAP

SCALE:	
DATE:	07-27-09
DRAWN BY:	LHL
CHECKED BY:	PWL

FIGURE 8

SCDHEC
IFB-37166-11/5/09-EMW
Page: 73



Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-2	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-2R	1,400	8,100	1,700	8,700	19,900	579	<500	7.9
MW-3	3,200	14,000	1,890	10,100	29,200	709	<500	15.7
MW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-5	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.021
MW-6	610	870	320	900	2,290	250	<5.0	1.81
MW-7	1,200	140	160	244	1,784	71	40	<0.021
MW-8	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	53	<0.021
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-12	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-13	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-14	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-15	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-17	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0.046
MW-18R	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-19	29,000	31,600	<2500	19,400	78,100	<2500	<2500	658
MW-20	500	3,800	410	3,030	8,050	120	<5.0	4.54
MW-21	2,300	3,300	530	2,490	8,610	<500	<500	11.5
MW-22	5,300	17,000	<2500	12,000	34,300	<2500	<2500	63.6
MW-23	73	500	590	1,360	2,523	99	<5.0	0.819
MW-24	6,400	39,000	3,400	18,600	60,400	<2500	<2500	132
MW-25	1,500	9,100	1,800	9,400	20,800	<500	<500	371
MW-26	6,300	6,900	2,200	7,800	23,400	470	470	42.6
MW-27	9,300	11,000	1,100	5,600	27,000	350	<250	181
MW-28	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-29	2,500	8,400	1,700	9,000	21,600	1,000	89	9.50
MW-30	25,000	34,000	3,090	16,800	78,850	<2500	<2500	852

Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-31	550	34	83	44	711	94	17	8.45
MW-32	8,400	15,000	<2500	9,900	33,300	<2500	<2500	15.70
MW-33	950	830	130	380	2,290	50	47	9.92
MW-34	1,900	1,500	280	860	4,540	150	85	<0.020
MW-35	5,200	20,000	2,800	13,800	41,800	760	<500	94.4
MW-36	19,800	41,000	3,300	18,500	81,800	<2500	<2500	319
MW-37	7,500	21,000	2,700	14,300	45,500	<2500	<2500	103
MW-38	3,800	1,800	1,600	3,240	10,440	400	92	4.73
MW-39	68	14	23	33	139	<5.0	<5.0	<0.020
MW-40	11,000	18,000	2,300	12,700	44,000	690	<500	171
MW-41	390	26	14	62	492	8.8	6.6	0.75
MW-42	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-43	6,100	12,000	1,600	6,900	26,600	570	49	37.2
MW-44	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-45	150	120	170	570	1,010	120	<5.0	8.64
MW-46	3,000	4,400	400	2,290	10,090	60	11	36.1
MW-47	200	280	180	470	1,130	77	<5.0	0.229
MW-48	190	<5.0	<5.0	<5.0	190	16	<5.0	<0.021
MW-49	<5.0	<5.0	<5.0	<5.0	BDL	16	<5.0	<0.021
DW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-2	25	97	34	224	380	34	<5.0	0.029
DW-3	<5.0	7.0	<5.0	9.4	16.4	8.0	<5.0	<0.020
DW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-5	8.9	48	34	163	253.9	1400	<5.0	0.038
DW-6	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
SV-1	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.020

NOTES: Deep Well results not included in Isopleth Maps

SOURCE: Based on GS2 Field notes and RLS survey by Jennison Weed Surveyors dated June 3, 2009

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

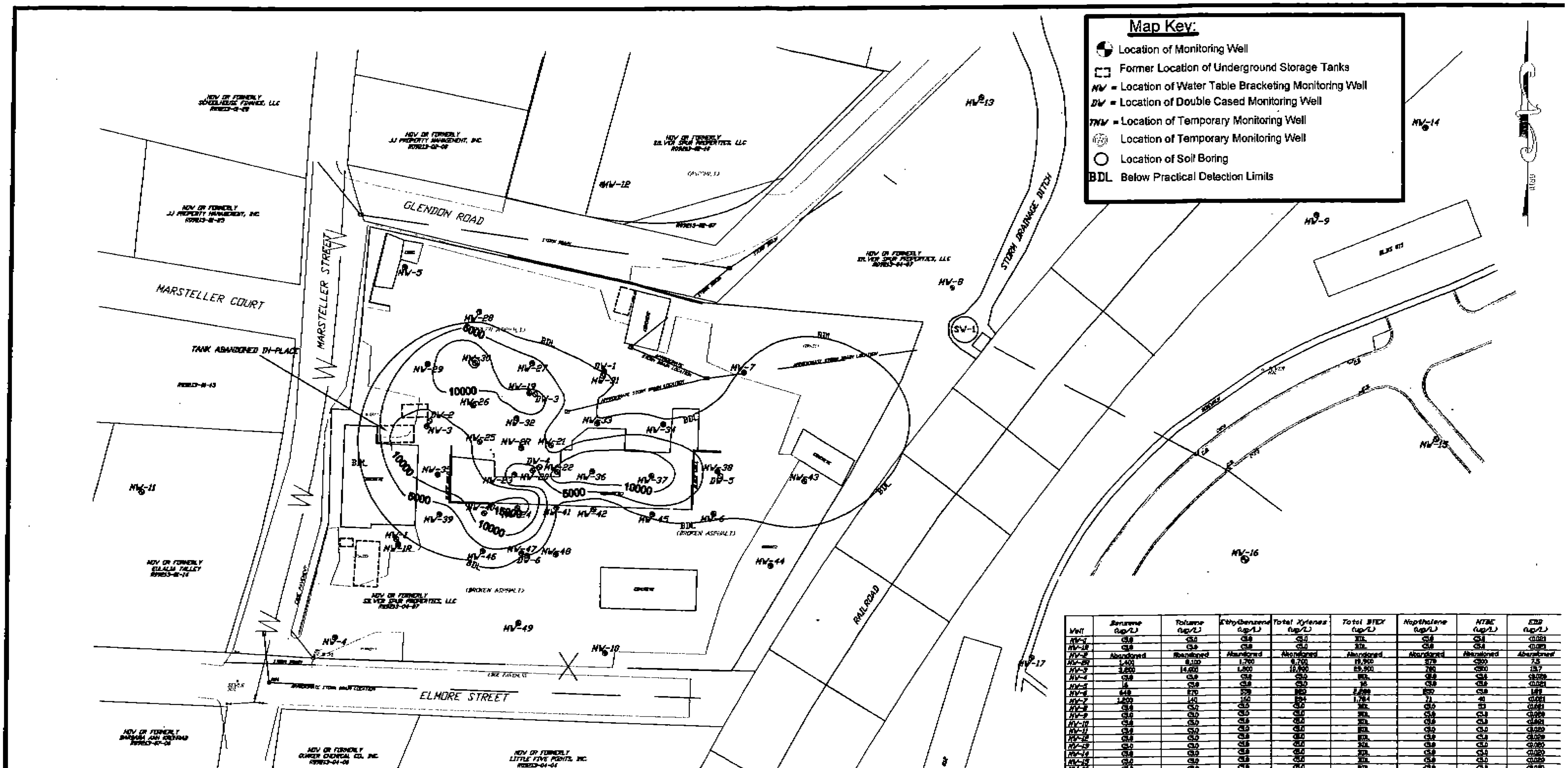
FMR. SCDOT COLUMBIA MAINTENANCE FACILITY
3736 MARSTELLER DRIVE,
COLUMBIA, SC
SCDHEC FACILITY ID # 07359
GS2 Job Number 09-3114-1

ETHYLBENZENE ISOPLETH MAP

SCALE:	
DATE:	07-27-09
DRAWN BY:	LHL
CHECKED BY:	PWL

FIGURE 9

SCDHEC
IFB-37166-11/5/09-EMW
Page: 74



Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-31	550	34	93	44	711	34	17	0.45
MW-32	8,400	15,000	<2500	9,900	33,300	<2500	<2500	15.70
MW-33	950	930	130	380	2,290	50	47	5.92
MW-34	1,900	1,500	290	850	4,540	150	25	<0.020
MW-35	5,290	20,200	2,800	13,800	41,800	760	<500	94.4
MW-36	19,000	41,000	3,300	18,500	81,800	<2500	<2500	318
MW-37	7,500	21,000	6,700	14,300	49,500	<2500	<2500	103
MW-38	3,800	1,800	1,400	3,240	10,440	680	92	4.73
MW-39	68	14	23	33	138	<5.0	<5.0	<0.020
MW-40	11,000	18,000	2,300	12,700	44,000	690	<500	171
MW-41	380	26	14	62	482	6.8	6.6	0.73
MW-42	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-43	6,100	32,000	1,600	6,900	46,600	570	49	37.2
MW-44	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-45	150	120	170	570	1,010	120	<5.0	0.64
MW-46	3,030	4,400	400	2,290	10,090	60	11	36.1
MW-47	280	280	100	470	1,130	77	<5.0	0.029
MW-48	190	<5.0	<5.0	<5.0	190	16	<5.0	<0.021
MW-49	<5.0	<5.0	<5.0	<5.0	BDL	16	<5.0	<0.021
DW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-2	15	97	34	234	380	24	<5.0	0.029
DW-3	<5.0	7.8	<5.0	9.6	16.4	8.1	<5.0	<0.020
DW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-5	8.9	48	34	163	253.9	1400	<5.0	0.039
DW-6	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
SV-1	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.020

35 0 35 70 105
GRAPHIC SCALE - FEET

NOTES: Deep Well results not included in Isopleth Maps

Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-2	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-2R	1,400	8,100	1,700	8,700	19,900	370	<500	7.5
MW-3	3,600	14,600	1,800	10,900	29,900	780	<500	13.7
MW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-5	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.021
MW-6	640	870	370	880	2,280	850	<5.0	181
MW-7	1,200	140	160	264	1,764	71	40	<0.021
MW-8	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	53	<0.021
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-12	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-13	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-14	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-15	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-17	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0.016
MW-18D	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-19	29,000	31,000	<2500	11,100	72,100	<2500	<2500	620
MW-20	860	3,800	410	3,030	8,090	180	<5.0	43.4
MW-21	2,300	2,300	330	2,400	6,800	<500	<500	115
MW-22	3,300	17,000	<2500	14,000	34,300	<2500	<2500	63.8
MW-23	72	390	870	1,560	2,892	89	<5.0	0.210
MW-24	9,600	30,000	3,400	18,400	60,600	<2500	<2500	133
MW-25	1,500	9,400	1,800	9,400	24,000	<500	<500	37.1
MW-26	6,500	6,100	2,200	7,800	23,400	690	470	42.8
MW-27	9,300	11,800	1,400	9,400	27,800	250	<250	110
MW-28	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-29	8,500	8,400	4,700	9,000	21,400	1,800	20	9.50
MW-30	25,000	34,000	3,200	16,200	78,200	<2500	<2500	692

SOURCE: Based on GS2 Field notes and RLS survey by Jennison Weed Surveyors dated June 3, 2009

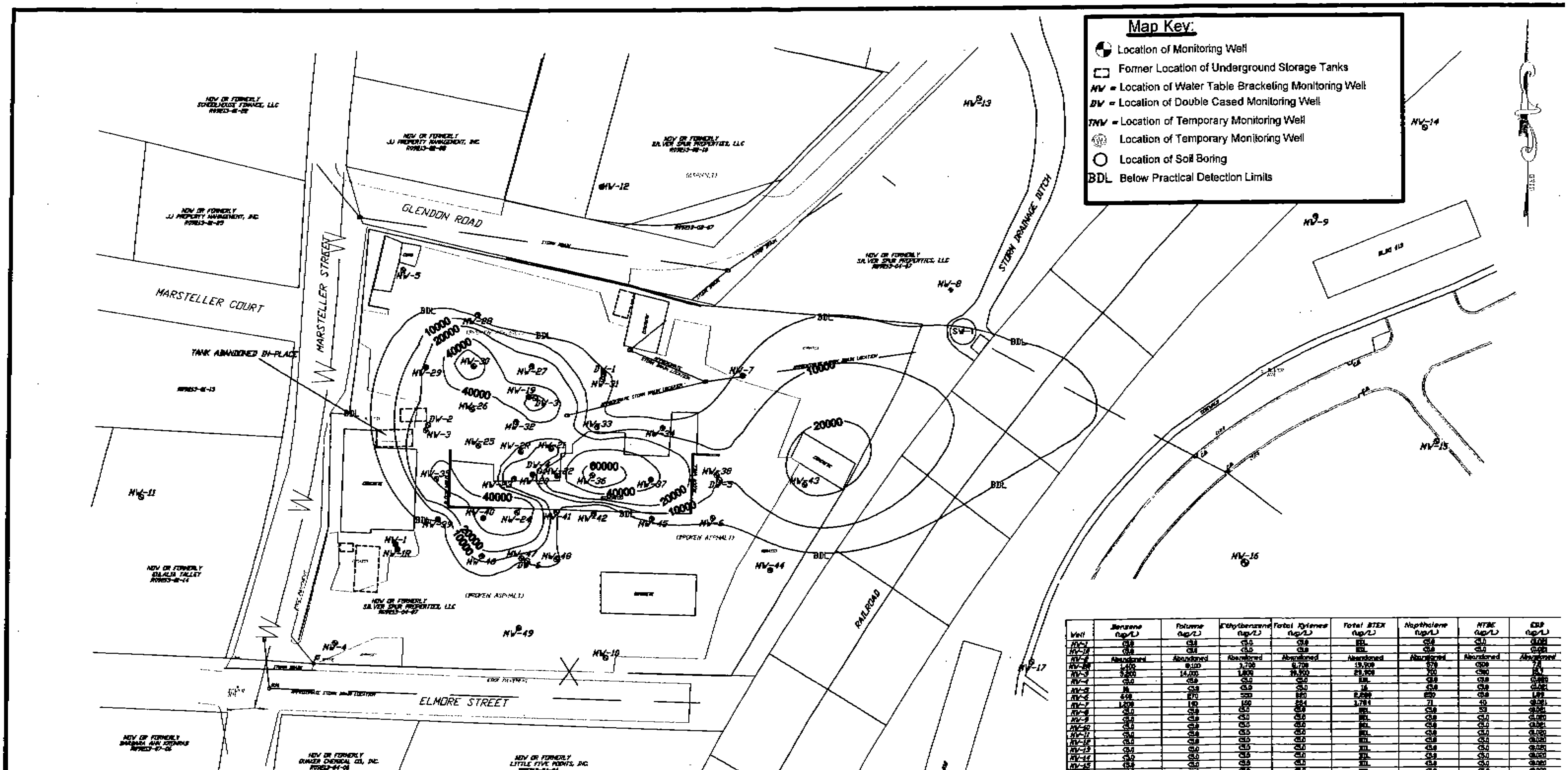
GS2
ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

FMR. SCDOT COLUMBIA MAINTENANCE FACILITY
3736 MARSTELLER DRIVE,
COLUMBIA, SC
SCDHEC FACILITY ID # 07359
GS2 Job Number 09-3114-1

TOTAL XYLENES
ISOPLETH MAP

SCALE:	
DATE:	07-27-09
DRAWN BY:	LHL
CHECKED BY:	PWL
FIGURE 10	

SCDHEC
IFB-37166-11/5/09-EMW
Page: 75



Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-31	550	34	83	44	711	94	17	0.43
MW-32	8,400	15,000	<2500	9,900	33,300	<2500	<2500	15.70
MW-33	950	830	120	390	2,290	58	47	9.92
MW-34	1,900	1,500	290	860	4,540	150	25	<0.020
MW-35	5,200	20,000	2,800	13,800	41,800	760	<500	24.4
MW-36	19,000	41,000	3,300	18,500	81,800	<2500	<2500	318
MW-37	7,500	21,000	2,700	14,370	45,590	<2500	<2500	103
MW-38	3,800	1,800	1,600	3,240	10,440	409	92	4.73
MW-39	68	14	23	33	138	<5.0	<5.0	<0.020
MW-40	11,000	18,000	2,300	12,700	44,000	690	<500	171
MW-41	390	26	14	62	492	8.8	4.6	0.73
MW-42	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-43	6,100	12,000	1,400	6,900	26,400	570	49	37.2
MW-44	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-45	150	180	170	570	1,010	120	<5.0	0.64
MW-46	3,000	4,400	400	2,290	10,090	40	11	36.1
MW-47	200	280	180	470	1,130	77	<5.0	0.229
MW-48	190	<5.0	<5.0	<5.0	190	16	<5.0	<0.021
MW-49	<5.0	<5.0	<5.0	<5.0	BDL	16	<5.0	<0.021
DW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-2	15	97	34	234	380	31	<5.0	0.829
DW-3	<5.0	7.0	<5.0	9.6	16.6	9.0	<5.0	<0.020
DW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-5	8.9	49	34	163	253.9	1480	<5.0	0.038
DW-6	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
SW-1	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.020

Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0.021
MW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0.021
MW-2	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-2R	1,400	8,100	1,700	8,700	19,900	570	<500	7.4
MW-3	3,200	14,000	1,800	10,900	29,900	700	<500	18.7
MW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0.089
MW-5	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.021
MW-6	440	870	520	820	2,650	650	<5.0	1.89
MW-7	1,200	190	160	234	1,784	71	40	<0.021
MW-8	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	53	<0.021
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-12	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-13	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-14	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-15	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-17	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0.046
MW-18R	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-19	29,000	31,000	<2500	13,800	73,800	<2500	<2500	409
MW-20	810	3,600	418	3,030	8,059	180	<5.0	4.54
MW-21	4,300	3,300	330	2,680	8,610	<500	<500	11.5
MW-22	3,300	17,000	<2500	12,000	34,300	<2500	<2500	63.8
MW-23	72	590	270	1,550	2,502	19	<5.0	10.9
MW-24	8,600	30,000	3,400	18,600	60,600	<2500	<2500	120
MW-25	1,500	9,480	1,800	9,400	20,800	<500	<500	3.71
MW-26	4,300	6,900	2,200	7,800	23,400	670	470	42.4
MW-27	9,200	11,800	1,100	5,400	27,400	250	<250	190
MW-28	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-29	2,500	8,400	1,700	9,000	21,600	1,800	89	5.50
MW-30	25,000	34,400	3,000	16,200	78,200	<2500	<2500	652

NOTES: Deep Well results not Included in Isopleth Maps

SOURCE: Based on GS2 Field notes and RLS survey by Jennison Weed Surveyors dated June 3, 200[illegible]

GS2
ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

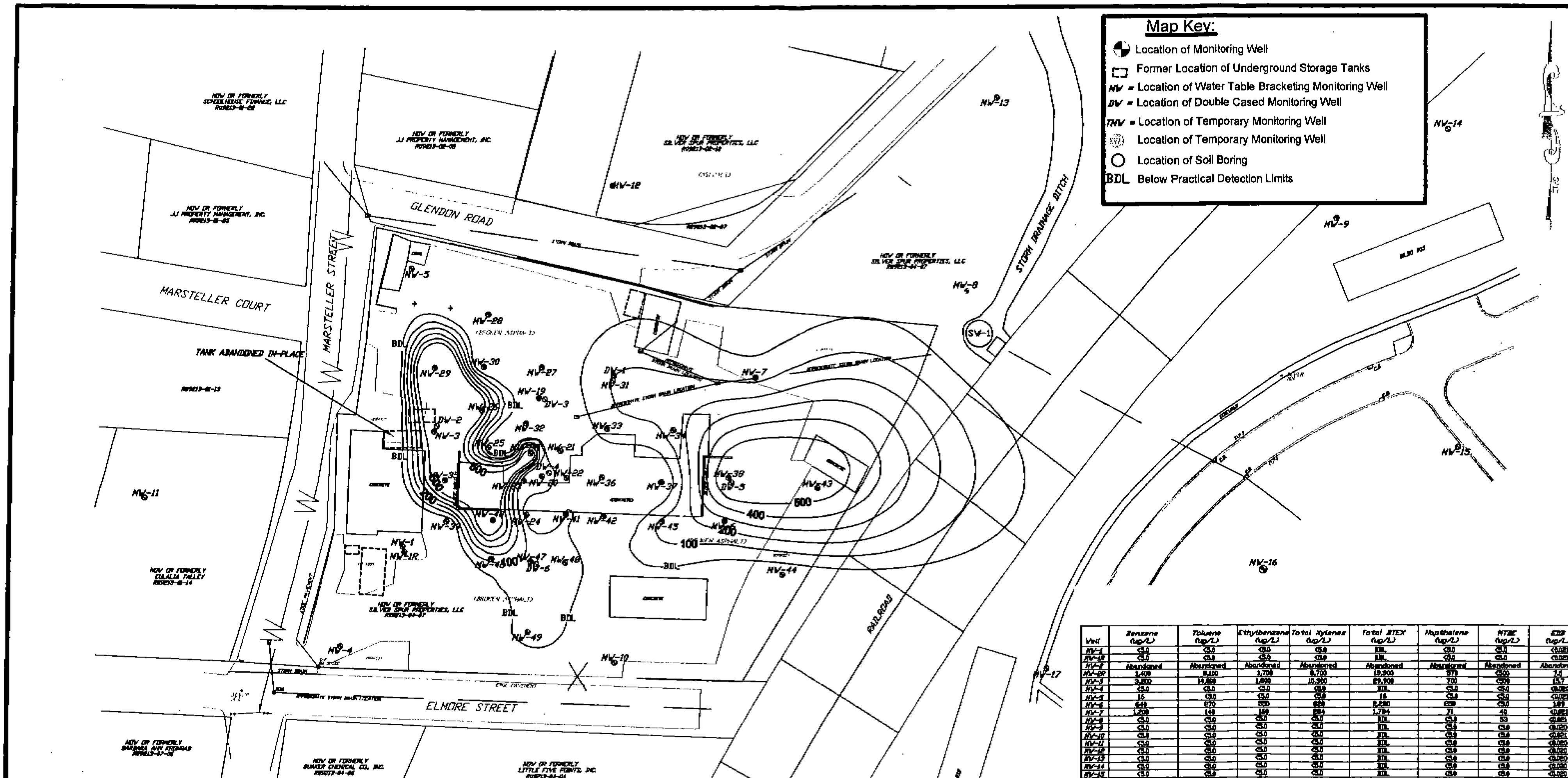
FMR. SCDOT COLUMBIA MAINTENANCE FACILITY
3736 MARSTELLER DRIVE,
COLUMBIA, SC
SCDHEC FACILITY ID # 07359
GS2 Job Number 09-3114-1

TOTAL BTEX ISOPLETH MAP

SCALE:	
DATE:	07-27-09
DRAWN BY:	LHL
CHECKED BY:	PWL

FIGURE 11

SCDHEC
IFB-37166-11/5/09-EMW
Page: 76



Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-31	559	34	83	44	711	94	17	0.45
MW-32	8,490	15,000	<2500	9,800	33,300	<2500	<2500	15.70
MW-33	950	820	130	390	2,290	50	47	9.92
MW-34	1,900	1,500	290	860	4,540	150	25	<0.020
MW-35	5,200	20,000	2,800	13,800	41,800	760	<500	94.4
MW-36	19,000	41,000	3,300	18,500	81,800	<2500	<2500	318
MW-37	7,500	21,000	2,700	14,300	45,500	<2500	<2500	103
MW-38	3,800	1,800	1,600	3,240	10,440	600	92	4.73
MW-39	68	14	23	33	138	<5.0	<5.0	<0.020
MW-40	11,000	18,000	2,300	12,700	44,000	690	<500	171
MW-41	350	25	14	62	462	8.8	6.6	8.75
MW-42	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-43	6,100	12,000	1,600	6,900	26,600	570	49	37.2
MW-44	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-45	150	180	170	570	1,010	120	<5.0	0.44
MW-46	3,000	4,400	400	2,290	10,090	60	11	36.1
MW-47	200	830	190	470	1,130	77	<5.0	0.229
MW-48	190	<5.0	<5.0	<5.0	190	16	<5.0	<0.021
MW-49	<5.0	<5.0	<5.0	<5.0	BDL	16	<5.0	<0.021
DW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-2	15	97	34	234	380	34	<5.0	0.029
DW-3	<5.0	7.0	<5.0	9.6	16.6	8.0	<5.0	<0.020
DW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-5	6.9	48	34	163	253.9	1400	<5.0	0.036
DW-6	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
SV-1	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.020

GRAPHIC SCALE – FEET (35, 0, 35, 70, 105)

NOTES: Deep Well results not included in Isopleth Maps

Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-2	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-2R	1,400	8,100	1,700	8,700	19,900	970	<500	7.5
MW-3	3,800	14,800	1,800	10,300	29,100	700	<500	15.7
MW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-5	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.020
MW-6	640	670	550	620	2,280	250	<5.0	149
MW-7	1,200	140	160	284	1,784	71	40	<0.021
MW-8	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	53	<0.020
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-12	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-13	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-14	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-15	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-17	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0.046
MW-18D	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-19	89,000	31,600	<2500	19,100	73,200	<2500	<2500	650
MW-20	810	3,800	410	3,030	8,050	180	<5.0	4.54
MW-21	8,300	3,300	530	8,480	8,810	<500	<500	11.5
MW-22	5,300	17,800	<2500	12,800	34,300	<2500	<2500	63.8
MW-23	78	580	290	1,560	2,202	84	<5.0	0.219
MW-24	8,400	30,400	3,400	18,600	60,600	<2500	<2500	133
MW-25	1,500	9,100	1,800	6,480	68,800	<500	<500	3.71
MW-26	6,300	6,900	2,600	7,650	23,400	610	470	42.8
MW-27	9,300	11,800	1,180	5,600	27,800	350	<250	197
MW-28	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-29	2,500	8,400	1,700	9,000	21,400	1,000	20	9.30
MW-30	89,000	34,000	3,600	16,800	78,800	<2500	<2500	652

SOURCE: Based on GS2 Field notes and RLS survey by Jennison Weed Surveyors dated June 3, 2009

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

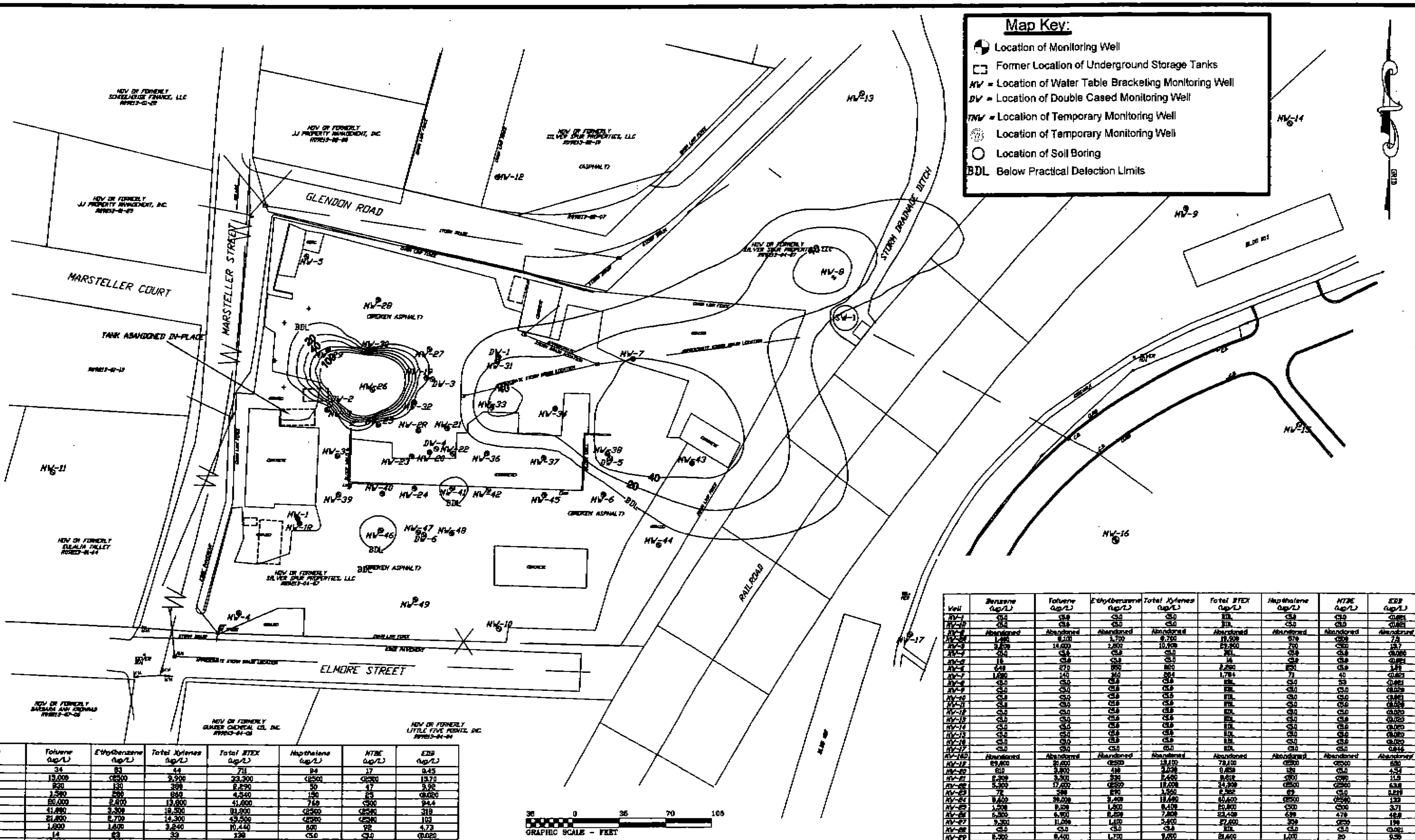
FMR. SCDOT COLUMBIA MAINTENANCE FACILITY
3736 MARSTELLER DRIVE,
COLUMBIA, SC
SCDHEC FACILITY ID # 07359
GS2 Job Number 09-3114-1

NAPHTHALENE
ISOPLETH MAP

SCALE:	
DATE:	07-27-09
DRAWN BY:	LHL
CHECKED BY:	PWL

FIGURE 12

SCDHEC
IFB-37166-11/5/09-EMW
Page: 77



Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-2	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-2R	1,400	8,100	1,700	8,700	19,900	570	<500	7.5
MW-3	3,200	14,000	1,800	10,900	29,900	700	<500	13.7
MW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-5	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.021
MW-6	640	270	550	820	2,280	250	<5.0	1.11
MW-7	1,080	140	160	384	1,764	71	40	<0.021
MW-8	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	33	<0.021
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-12	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-13	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-14	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-15	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-17	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0.046
MW-18D	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-19	29,800	20,600	<2500	13,100	73,100	<2500	<2500	680
MW-20	610	3,800	410	3,030	8,850	120	<5.0	4.54
MW-21	2,300	3,300	330	2,480	8,610	<500	<500	11.9
MW-22	5,300	17,000	<2500	12,000	34,300	<2500	<2500	63.8
MW-23	72	390	210	1,560	2,582	69	<5.0	0.219
MW-24	8,600	30,000	3,400	18,600	60,600	<2500	<2500	132
MW-25	1,200	9,100	1,800	8,400	20,800	<500	<500	3.71
MW-26	6,300	6,900	2,250	7,800	23,400	630	470	48.8
MW-27	9,300	11,000	1,100	5,600	27,600	350	<250	190
MW-28	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-29	8,300	9,400	1,700	1,200	21,460	1,000	20	9.59
MW-30	29,000	34,000	3,000	14,800	78,800	<2500	<2500	652

Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-31	550	34	83	44	711	94	17	0.45
MW-32	8,400	13,000	<2500	9,900	33,300	<2500	<2500	13.70
MW-33	950	830	130	380	2,290	50	47	9.92
MW-34	1,900	1,500	280	860	4,540	150	25	<0.020
MW-35	5,200	20,000	2,800	13,800	41,800	760	<500	94.4
MW-36	19,000	41,000	3,300	18,500	81,800	<2500	<2500	318
MW-37	7,500	21,000	2,700	14,300	45,500	<2500	<2500	103
MW-38	3,800	1,800	1,600	3,240	10,440	600	92	4.73
MW-39	68	14	23	33	138	<5.0	<5.0	<0.020
MW-40	11,000	18,000	2,300	12,700	44,000	690	<500	171
MW-41	380	24	14	62	482	9.9	6.6	0.73
MW-42	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-43	6,100	12,000	1,400	6,300	25,800	570	49	37.2
MW-44	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-45	150	120	170	570	1,010	120	<5.0	0.64
MW-46	3,800	4,400	400	2,290	10,890	68	11	36.1
MW-47	200	280	180	470	1,130	77	<5.0	0.258
MW-48	190	<5.0	<5.0	<5.0	190	16	<5.0	<0.021
MW-49	<5.0	<5.0	<5.0	<5.0	BDL	16	<5.0	<0.021
DW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-2	15	97	34	234	380	34	<5.0	0.029
DW-3	<5.0	7.0	<5.0	9.6	16.6	8.0	<5.0	<0.020
DW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-5	8.9	48	34	163	253.9	1400	<5.0	0.039
DW-6	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
SW-1	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.020

NOTES: Deep Well results not included in Isopleth Maps

SOURCE: Based on GS2 Field notes and RLS survey by Jennison Weed Surveyors dated June 3, 2009

GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

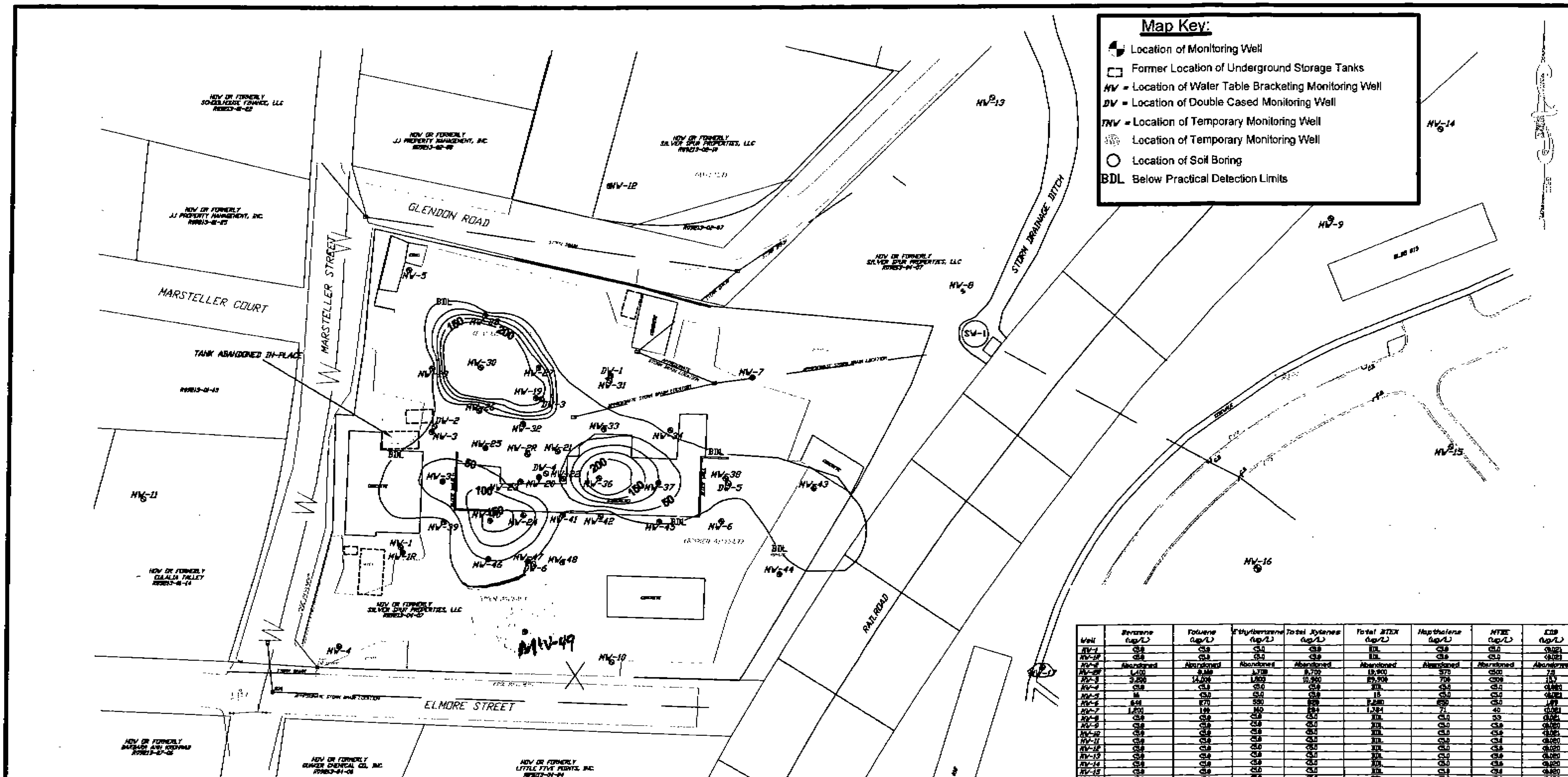
FMR. SCDOT COLUMBIA MAINTENANCE FACILITY
3736 MARSTELLER DRIVE,
COLUMBIA, SC
SCDHEC FACILITY ID # 07359
GS2 Job Number 09-3114-1

MTBE
ISOPLETH MAP

SCALE:	
DATE:	07-27-09
DRAWN BY:	LHL
CHECKED BY:	PWL

FIGURE 13

SCDHEC
IFB-37166-11/5/09-EMW
Page: 78



Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-2	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-2R	1,400	8,100	1,700	8,700	19,900	570	<500	7.5
MW-3	3,200	14,000	1,800	10,900	29,900	700	<500	15.7
MW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-5	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.021
MW-6	641	870	590	829	2,930	650	<5.0	1.69
MW-7	1,000	100	140	144	1,384	71	40	0.081
MW-8	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	53	<0.021
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-12	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-13	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-14	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-15	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-17	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	0.046
MW-18R	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
MW-19	29,000	31,000	<2500	13,100	73,100	<2500	<2500	630
MW-20	810	3,800	410	3,030	8,050	180	<5.0	454
MW-21	4,300	3,300	330	2,480	6,810	<500	<500	11.5
MW-22	5,300	17,000	<2500	12,000	34,300	<2500	<2500	63.8
MW-23	72	520	290	1,560	2,442	99	<5.0	0.819
MW-24	6,600	30,400	3,400	19,400	59,800	<2500	<2500	133
MW-25	1,500	9,100	1,800	8,400	20,800	<500	<500	371
MW-26	6,500	6,900	2,600	7,400	23,400	690	470	41.8
MW-27	9,300	11,000	1,100	5,600	27,000	350	<250	180
MW-28	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-29	2,500	8,400	1,700	9,000	21,600	1,800	20	150
MW-30	25,000	34,000	3,000	16,200	78,200	<2500	<2500	652

Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Napthalene (ug/L)	MTBE (ug/L)	EDB (ug/L)
MW-31	550	34	83	44	711	94	17	0.45
MW-32	8,400	15,000	<2500	9,900	33,300	<2500	<2500	15.70
MW-33	940	830	130	390	2,290	50	47	9.92
MW-34	1,900	1,500	280	660	4,340	130	83	<0.020
MW-35	5,200	20,000	2,800	13,800	41,800	760	<500	94.4
MW-36	19,000	41,000	3,300	18,500	81,800	<2500	<2500	319
MW-37	7,500	21,000	2,700	14,300	45,500	<2500	<2500	103
MW-38	3,800	1,800	1,600	3,240	10,440	600	92	4.73
MW-39	68	14	23	33	138	<5.0	<5.0	<0.020
MW-40	11,000	18,000	2,300	12,700	44,000	690	<500	171
MW-41	380	26	14	62	482	8.0	6.6	0.75
MW-42	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
MW-43	6,100	12,000	1,600	6,900	26,600	570	49	37.2
MW-44	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.021
MW-45	150	120	170	570	1,010	180	<5.0	0.64
MW-46	3,000	4,400	400	2,290	10,090	60	11	36.1
MW-47	200	280	180	470	1,130	77	<5.0	0.229
MW-48	190	<5.0	<5.0	<5.0	190	16	<5.0	<0.021
MW-49	<5.0	<5.0	<5.0	<5.0	BDL	16	<5.0	<0.021
DW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-2	15	97	34	234	380	34	<5.0	0.029
DW-3	<5.0	7.0	<5.0	9.6	16.6	8.0	<5.0	<0.020
DW-4	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
DW-5	8.9	46	34	163	251.9	1400	<5.0	0.039
DW-6	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<0.020
SV-1	16	<5.0	<5.0	<5.0	16	<5.0	<5.0	<0.020

GRAPHIC SCALE - FEET (35 0 35 70 105)

NOTES: Deep Well results not included in Isopleth Maps

SOURCE: Based on GS2 Field notes and RLS survey by Jennison Weed Surveyors dated June 3, 2009

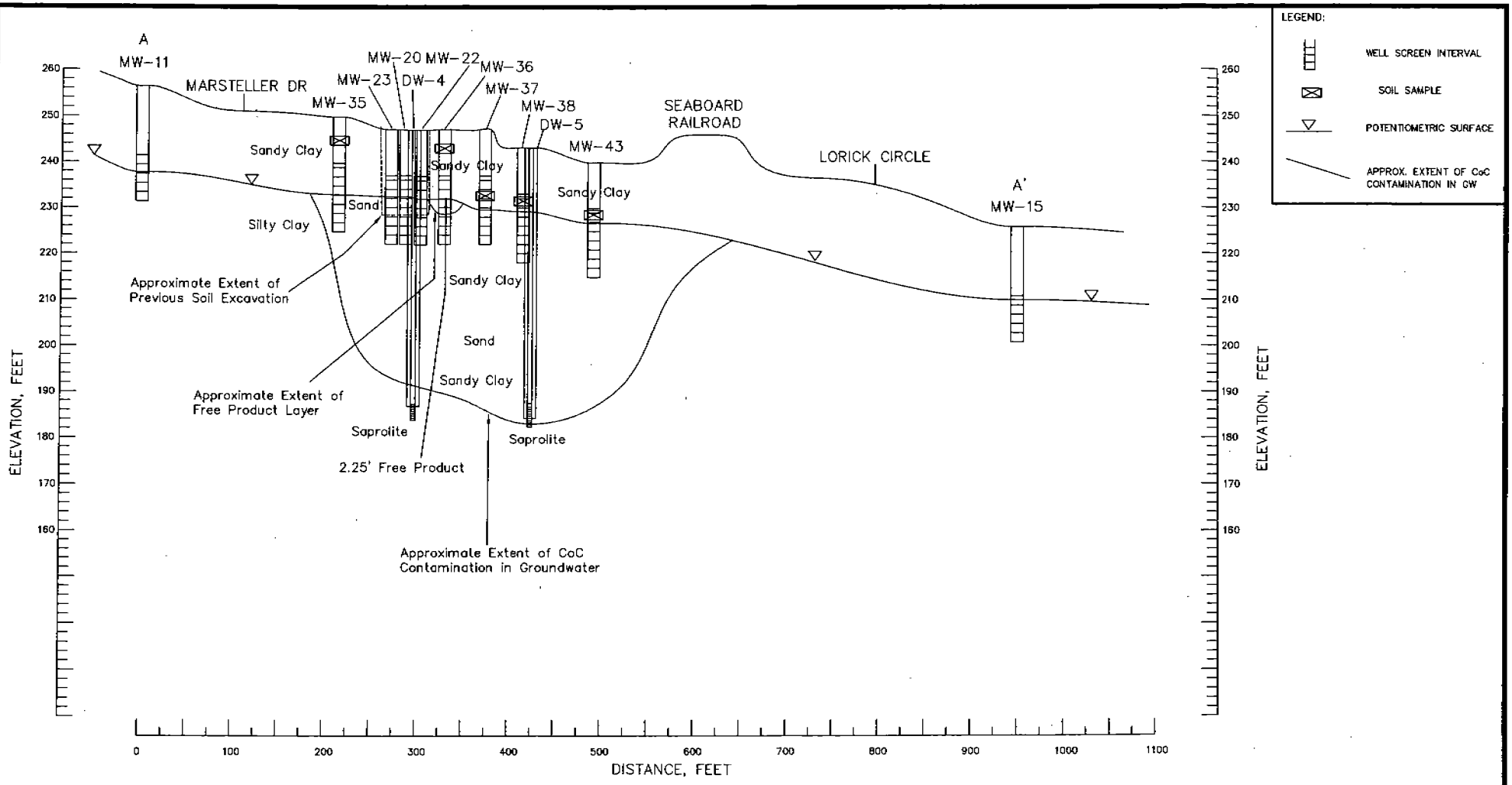
GS2 ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

FMR. SCDOT COLUMBIA MAINTENANCE FACILITY
3736 MARSTELLER DRIVE,
COLUMBIA, SC
SCDHEC FACILITY ID # 07359
GS2 Job Number 09-3114-1

EDB
ISOPLETH MAP

SCALE:	
DATE:	07-27-09
DRAWN BY:	LHL
CHECKED BY:	PWL

FIGURE 14



GS2
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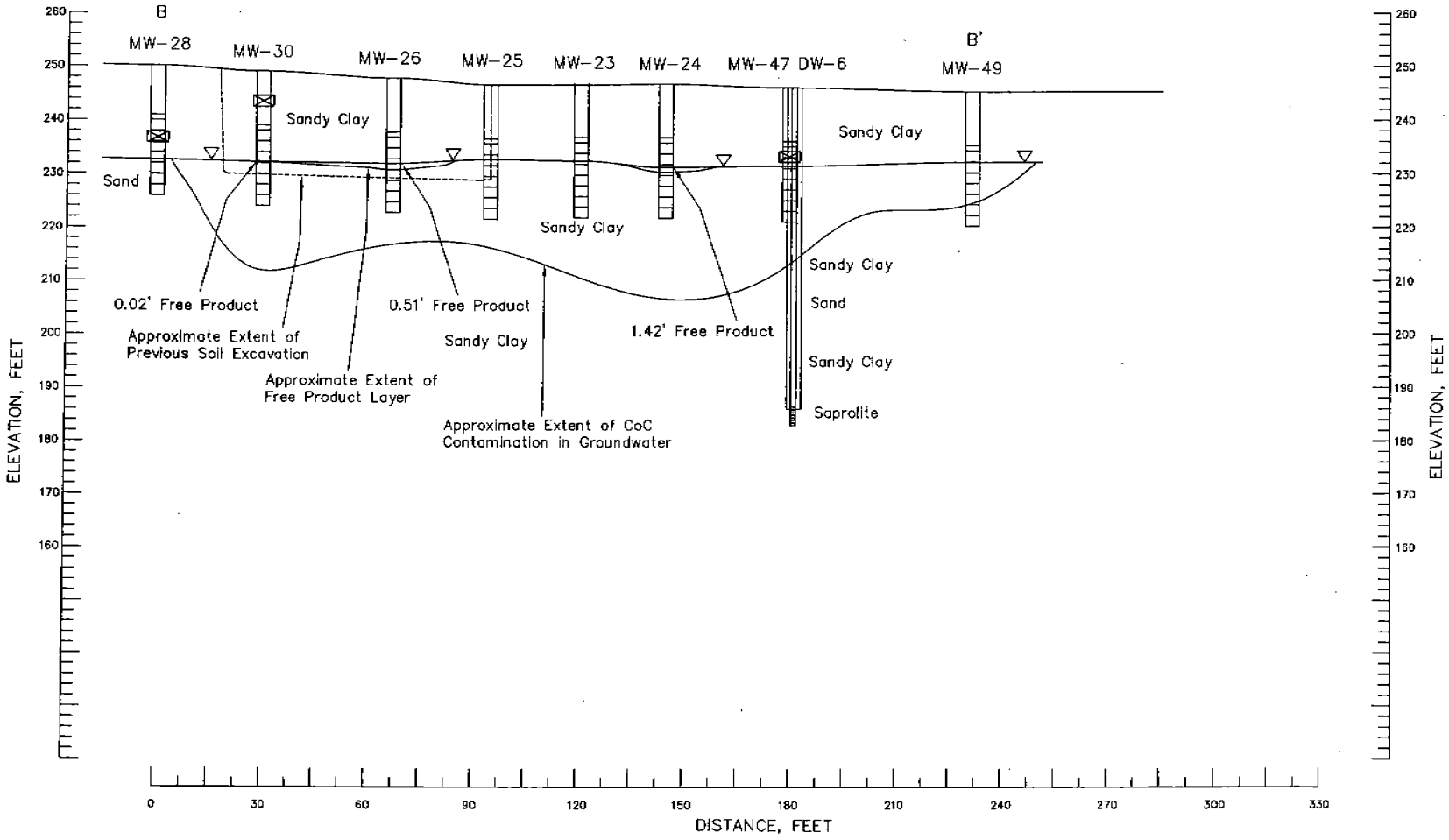
3736 MARSTELLER DRIVE,
COLUMBIA, SC
SCDHEC FACILITY ID # 07359
GS2 Job Number 09-3114-1

SUBSURFACE
GEOLOGIC PROFILE
A to A'

SCALE:	AS SHOWN
DATE:	06-29-09
DRAWN BY:	TJE
CHECKED BY:	LHL

FIGURE 15

SCDHEC
IFB-37166-11/5/09-EMW
Page: 80



LEGEND:

- WELL SCREEN INTERVAL
- SOIL SAMPLE
- POTENTIOMETRIC SURFACE
- APPROX. EXTENT OF CoC CONTAMINATION IN GW

GS2
ENGINEERING & ENVIRONMENTAL CONSULTANTS, INC.

FMR. SCDOT COLUMBIA MAINTENANCE FACILITY
3736 MARSTELLER DRIVE,
COLUMBIA, SC
SCDHEC FACILITY ID # 07359
GS2 Job Number 09-3114-1

SUBSURFACE GEOLOGIC PROFILE
B to B'

SCALE:	AS SHOWN
DATE:	06-29-09
DRAWN BY:	TJE
CHECKED BY:	LHL

FIGURE 16

E. **Soil Boring Data**

Drilling Dates 8/17-18/00
Provide a brief justification for the location of the soil borings:

B-1	Installed in former 1,000 Gallon Waste Oil UST area.
B-2	Installed in former 500 Gallon Kerosene UST area.
B-3	Installed in former 1,000 Gallon Gasoline UST area.
B-4	Installed in former 1,000 Gallon Gasoline UST area.
B-5	Installed in former 1,000 Gallon Diesel dispenser area.
B-6	Installed former 1,000 Gallon Diesel UST basin.
B-7	Installed in former 12,000 Gallon Diesel UST basin.

Field Screening Procedures

Soil samples were composited at two-foot intervals during boring advancement, classified in the field, and retained for total organic vapor analysis. The samples were placed in plastic bags, sealed, allowed to volatilize for at least ten minutes, and analyzed for organic vapors using a Foxboro Model 128, flame ionization detector. The soil sample collected form the interval exhibiting the highest vapor concentration from each boring was retained for laboratory analysis. If no elevated vapor concentrations were detected, the deepest sample collected from above the anticipated water table was analyzed. Each sample was placed in a laboratory prepared sample container, packed in an iced cooler with chain of custody documentation, and shipped to a South Carolina certified laboratory for analysis.

FORMER UST AREA BORINGS-

Borehole B-1

Split Spoon Interval (ft.)	Field Screening Results (ppm)	Lithology (soil type, color, rocks/minerals present)	Soil Conditions (dry, moist, etc; petroleum odor)
4-6	2	Silty sand, trace clay, brown-orange, loose	Dry, no odor
*9-11	9.5	Sandy clay, tan, orange, brown, firm	Moist, no odor
14-16	22	Sandy clay to clay, mottled gray, yellow-orange, firm	Moist, no odor
19-21	120	Clayey sand, orange, gray	Saturated, no odor

*Note: * - sample submitted for laboratory analysis.*

Borehole B-2

Split Spoon Interval (ft.)	Field Screening Results (ppm)	Lithology (soil type, color, rocks/minerals present)	Soil Conditions (dry, moist, etc; petroleum odor)
4-6	1	Sandy clay, red-orange, gray, yellow, firm	Dry, no odor
9-11	2	Sandy clay to clay, gray, orange streaks, very firm	Dry, no odor
14-16	220	Clay to sand, pink, gray, orange	Moist, trace odor

Borehole B-3

Split Spoon Interval (ft.)	Field Screening Results (ppm)	Lithology (soil type, color, rocks/minerals present)	Soil Conditions (dry, moist, etc; petroleum odor)
4-6*	140	Clayey sand, orange, tan, dark gray, firm	Dry, petroleum odor
9-11	50	Clay, gray, red streaks, firm	Dry, trace odor
14-16	800	Clay to clayey sand, orange, tan, brow, loose	Wet, petroleum odor

Borehole B-4

Split Spoon Interval (ft.)	Field Screening Results (ppm)	Lithology (soil type, color, rocks/minerals present)	Soil Conditions (dry, moist, etc; petroleum odor)
4-6	1	Sandy clay, mottled, red, yellow, orange, firm	Dry, no odor
9-11	100	Sandy clay to clayey sand to clay	Dry, moist, dry, no odor
14-16*	>1000	Clay to silty clayey sand, tan, orange, loose	Moist, strong petroleum odor

Borehole B-6

Split Spoon Interval (ft.)	Field Screening Results (ppm)	Lithology (soil type, color, rocks/minerals present)	Soil Conditions (dry, moist, etc; petroleum odor)
4-6	0	Clayey sand, brown, yellow, orange, firm	Dry, no odor
9-11*	0	Clayey sand to clay, tan, gray, firm	Moist to dry, no odor
14-16	1	Silty sand, tan, gray, trace orange clay bands	Moist, no odor

Borehole B-7

Split Spoon Interval (ft.)	Field Screening Results (ppm)	Lithology (soil type, color, rocks/minerals present)	Soil Conditions (dry, moist, etc; petroleum odor)
4-6	1.4	Clayey sand, orange-gray, firm	Dry, no odor
9-11*	1.4	Clay, gray with red-orange, firm	Dry, no odor
14-16	1.2	Silty sand, tan, gray,trace orange	Moist, no odor

*Note * - sample submitted for laboratory analysis.*

PIPING /DISPENSER AREA BORINGS

Borehole B-5

Split Spoon Interval (ft.)	Field Screening Results (ppm)	Lithology (soil type, color, rocks/minerals present)	Soil Conditions (dry, moist, etc; petroleum odor)
0-2	580	Clayey sand, tan, brown, loose	Moist, petroleum odor, staining
2-3	>1000	Clayey sand, tan, brown, loose	Moist, petroleum odor, staining
3-4	>1000	Sandy clay, mottled red, orange, tan, firm	Dry, petroleum odor, staining
4-6	>1000	Sandy clay, mottled red, orange, tan, firm	Dry, petroleum odor, staining
6-8*	>1000	Sandy clay to rock @ 7.5 feet	Dry, petroleum odor, staining
8	NA	Auger refusal	NA

SOIL BORING ANALYTICAL DATA

CoC	RBSL	B-1 9-11'	B-2 14-16'	B-3 4-6'	B-4 14-16'	B-5 6-8'	B-6 9-11'	B-7 9-11'
Benzene	5.0	<5.0	<5.0	<5.0	**108**	**219**	<5.0	<5.0
Toluene	1,640	34.0	35.3	57.2	1,530	1,050	15.1	<5.0
Ethylbenzene	1,292	24.3	24.8	25.7	754	**5,360**	25.2	<5.0
Xylenes	42,898	102.5	79.7	113.2	4,520	17,750	78.9	<10.0
MTBE	NE	<5.0	<5.0	<5.0	62.2	<5.0	<5.0	<5.0
Naphthalene	211	<5.0	<5.0	14.7	**1,580**	**774**	102	<5.0
Benzo(a)anthracene	73,084	<330	<330	<330	<330	<330	<330	<330
Benzo(b)fluoranthene	29,097	<330	<330	<330	<330	<330	<330	<330
Benzo(k)fluoranthene	231,109	<330	<330	<330	<330	<330	<330	<330
Chrysene	12,998	<330	<330	<300	<300	<300	<330	<330

SOIL BORING ANALYTICAL DATA (Continued)

CoC	RBSL	B-1 9-11'	B-2 14-16'	B-3 4-6'	B-4 14-16'	B-5 6-8'	B-6 9-11'	B-7 9-11'
Dibenz(a,h)anthracene	87,866	<100	<100	<100	<100	<100	<100	<100
TPH (EPA 3550) mg/kg	NE	NA	NA	NA	NA	NA	NA	NA
TOC (Background boring) mg/kg	NE	NA	NA	NA	NA	NA	NA	NA

Notes:
1) *All results are reported in micrograms per kilogram (ug/kg) except where noted.*
2) *RBSL = South Carolina Risk-Based Screening Levels as listed in Table B3, (<5 feet) of the SCDHEC Risk Based Corrective (RBCA) Document (January, 1998).*
3) *NE =none established.*
4) *ND = not detected.*
5) *NA = not analyzed.*
6) *Soil samples were collected on August 17-18, 2000.*
7) *<= Less than the detection limit.*
8) *Results in boldface type indicate CoC concentrations greater than their respective RBSLs.*

MONITORING WELL SOIL ANALYTICAL DATA

CoC	RSBL	MW-3 9-11'	MW-4 9-11'	MW-5 9-11'
Benzene	5	<5.0	<5.0	<5.0
Toluene	1,640	<5.0	11.1	8.45
Ethylbenzene	1,292	<5.0	8.28	5.55
Xylenes	42,895	<10.0	38.3	23.45
MTBE	NE	<5.0	<5.0	<5.0
Naphthalene	211	<5.0	17.5	13.2
Benzo(a)anthracene	73,084	<330	<330	<330
Benzo(b)fluoranthene	29,097	<330	<330	<330
Benzo(k)fluoranthene	231,109	<330	<330	<330
Chrysene	12,998	<330	<330	<330

MONITORING WELL SOIL ANALYTICAL DATA (Continued)

CoC	RSBL	MW-3 9-11'	MW-4 9-11'	MW-5 9-11'
Dibenz(a,h)anthracene	87,866	<100	<100	<100
TPH (EPA 3550) mg/kg	NE	<0.005	NA	NA
TOC (Background boring) mg/kg	NE	NA	NA	80

Notes:
1) All results are reported in micrograms per kilogram (ug/kg) except where noted.
2) RBSL = South Carolina Risk-Based Screening Levels as listed in Table B3, (<5 feet) of the SCDHEC Risk Based Corrective (RBCA) Document (January, 1998).
3) NE =none established.
4) ND = not detected.
5) NA = not analyzed.
6) Soil samples were collected on August 17-18, 2000.
7) <= Less than the detection limit.
9) Results in boldface type indicate CoC concentrations greater than their respective RBSLs.

Soil Analytical Data

The soil sample from MW-3 was analyzed for grain size distribution (Sand 74%, Silt 4.0%, Clay 22.0%). The soil sample collected from each borehole which exhibited the highest organic vapor analysis (OVA) concentration above the water table was selected for analysis of benzene, toluene, ethylbenzene, xylenes (BTEX) per EPA Method 8260 and polynuclear aromatic hydrocarbons (PAHs) per EPA Method 8270. If no organic vapors were detected, a soil sample was selected from the bottom of the boring. Based on the OVA results, a worst case sample was selected for total petroleum hydrocarbons (TPH) per EPA method 3550/8015. Only benzene in B-4 and B-5, ethylbenzene in B-5 and naphthalene in B-4 and B-5 exceeded their RBSLs of 5.00, 1,292, and 210 mg/kg, respectively. The laboratory reports with chain of custody documentation are included in the Appendix. A soil CoC map is included as Figure 4. Soil generated during soil boring and monitoring well installation was placed in two labeled 55-gallon drums and subsequently picked up and disposed of by G&K tank Services, Sumter, South Carolina. A disposal manifest is included in the Appendix.

F. **Chemicals of Concern-Ground Water**

WELL NO.	INSTALLATION DATE	DEVELOPMENT DATE	SAMPLING DATE
MW-1	3/27/00	3/27/00	3/30/00
MW-2	3/27/00	3/27/00	3/30/00
MW-3	8/18/00	8/18/00	8/21/00
MW-4	8/18/00	8/18/00	8/21/00
MW-5	8/18/00	8/18/00	8/21/00

Monitoring well and ground water elevation

WELL NO.	TOC ELEVATION (ft)	SCREENED INTERVAL (ft)	DEPTH TO WATER (ft)	WATER TABLE ELEVATION (ft)
MW-1	99.13	8-18	Dry	Dry
MW-2	96.68	8-18	16.65	80.78
MW-3	99.86	14-24	18.9	80.96
MW-4	99.21	14-24	17.29	81.92
MW-5	101.70	14-24	19.57	82.13

Note: 0.96 feet of free product was measured in monitoring well MW-2. The water table elevation was converted based on the product thickness.

Enter dissolved oxygen measurements for each well in the Table below

Monitoring Well	MW-1	MW-2	MW-3	MW-4	MW-5
Dissolved Oxygen	NR	NR	2.83	1.39	7.01

Dissolved oxygen was not measured in MW-1 due to a lack of water, or in MW-2 due to a presence of free product.

GROUND WATER ANALYTICAL DATA

CoC	RBSL (ug/l)	MW-1	MW-2	MW-3	MW-4	MW-5
Free Product Thickness		None	0.96 ft	None	None	None
Benzene	5.0	NS	NS	7,475	3.21	2.42
Toluene	1,000	NS	NS	9,794	5.98	3.37
Ethylbenzene	700	NS	NS	1024	<1	<1
Xylenes	10,000	NS	NS	1,773	1.5	<1
Total BTEX	NE	NS	NS	20,066	10.69	5.79
MTBE	40	NS	NS	540	<1	<1
Naphthalene	10	NS	NS	<1	23.5	<1
Benzo(a)anthracene	10	NS	NS	<0.20	<0.20	<0.20
Benzo(b)fluoranthene	10	NS	NS	<0.20	<0.20	<0.20
Benzo(k)fluoranthene	10	NS	NS	<0.50	<0.50	<0.50
Chrysene	10	NS	NS	<5.00	<5.00	<5.00
Dibenz(a,h)anthracene	10	NS	NS	<0.20	<0.20	<0.20
Lead (mg/l)	Site Specific	NS	NS	0.052	0.028	<0.005
Nitrate (mg/l)	NE	NS	NS	0.17	1.03	1.19
Ferrous Iron (mg/l)	NE	NS	NS	2.5	1.3	<0.03
Sulfate (mg/l)	NE	NS	NS	2.73	2.29	4.64

Notes:
1) *All results are reported in micrograms per liter (ug/l) except where noted.*
2) *NE = none established.*
3) *NS = not sampled.*
4) *Ground water samples were collected on August 21, 2000.*
5) *Results in boldface type indicate CoC concentrations greater than their respective RBSLs.*
6) *MW-1 not sampled due to lack of water*
7) *MW-2 not sampled due to presence of free product*

F. **Ground Water Analytical Data**

The ground water RBSLs for benzene, tolene, ethylbenzene, and MTBE were exceeded at monitoring well MW-3. Approximately 0.96 feet of free product was measured in MW-2. No samples were collected from MW-2 due to free-product, or from MW-1 due to insufficient water. Lead was detected in ground water samples collected from MW-3 and MW-4. All other analyzed parameters were below detection limits. Field data information sheets for each well sampled are provided in the Appendix. Laboratory certificates of analysis and chain of custody records are included in the Appendix. Ground water generated during the sampling of the wells was placed in a labeled 55-gallon drum and subsequently picked up and disposed of by G&K Tank Services, Sumter, South Carolina. A disposal manifest is included in the Appendix. A ground water CoC map is included as Figure 5. Analysis of inorganic parameters indicate natural biodegradation is occurring on-site.

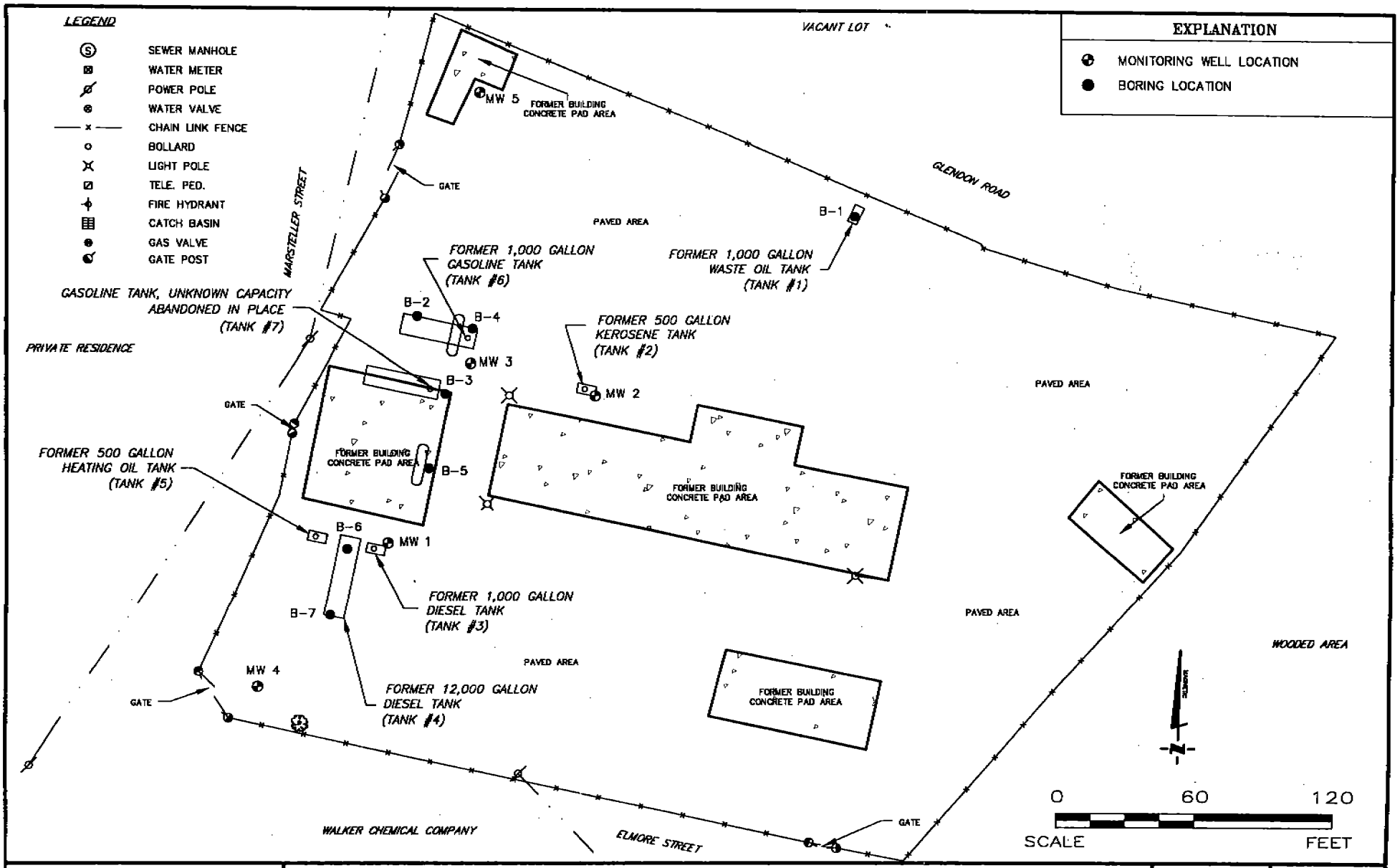
G. **Aquifer Characteristics**

Water level measurements at all monitoring wells were recorded with a clean water level meter accurate to 0.01 feet. A potentiometric map of the water table aquifer, based on water level measurements obtained from site monitoring wells, is included was Figure 3. The hydrogeologic data indicates the predominant ground water flow direction in the upper zone of the shallow aquifer is to the southeast with a hydraulic gradient of 0.025 ft/ft. Estimates of hydraulic conductivity (K) of the sediments at the site were obtained from borehole permeability (slug) tests. The tests were performed by inserting a 1.5 inch diameter by five foot PVC pipe into the well, removing it quickly, and then recording the response as the water level returned to equilibrium. The Bouwer and Rice method was used to interpret the field data and assess the hydraulic conductivity of the aquifer. A summary of slug test data test results, and the calculated semi-log graphs of drawdown versus time are included in the Appendix.

The rate of horizontal ground water flow at the site is controlled by the horizontal hydraulic conductivity (K), effective porosity (n_e), and the horizontal gradient (dh/dl). The linear ground water seepage velocity (v) can be calculated by substituting these values into the modified Darcy equation:

$$v = (K/n_e)\ (dh/dl)$$

Two borehole permeability tests were performed on monitoring wells to estimate the hydraulic conductivity of the surfical aquifer at the well screen. The calculated hydraulic conductivities ranged from 7.8 feet/day (MW-4) to 0.18 feet/day (MW-5), which is in a range of values which may be expected for the subsurface lithology identified at the site. A horizontal gradient of 0.025 ft./ft., based on ground water elevations recorded on August 21, 2000, was calculated for the site. The effective porosity (n_e) in a water table aquifer for soil described at the site is estimated to be approximately 0.25 (McWorter and Sunada, 1977). Thus, the linear ground water flow velocity, calculated from the modified Darcy equation using a conductivity of 7.8 feet/day is estimated to be 0.78 feet/day or 285 feet/year.



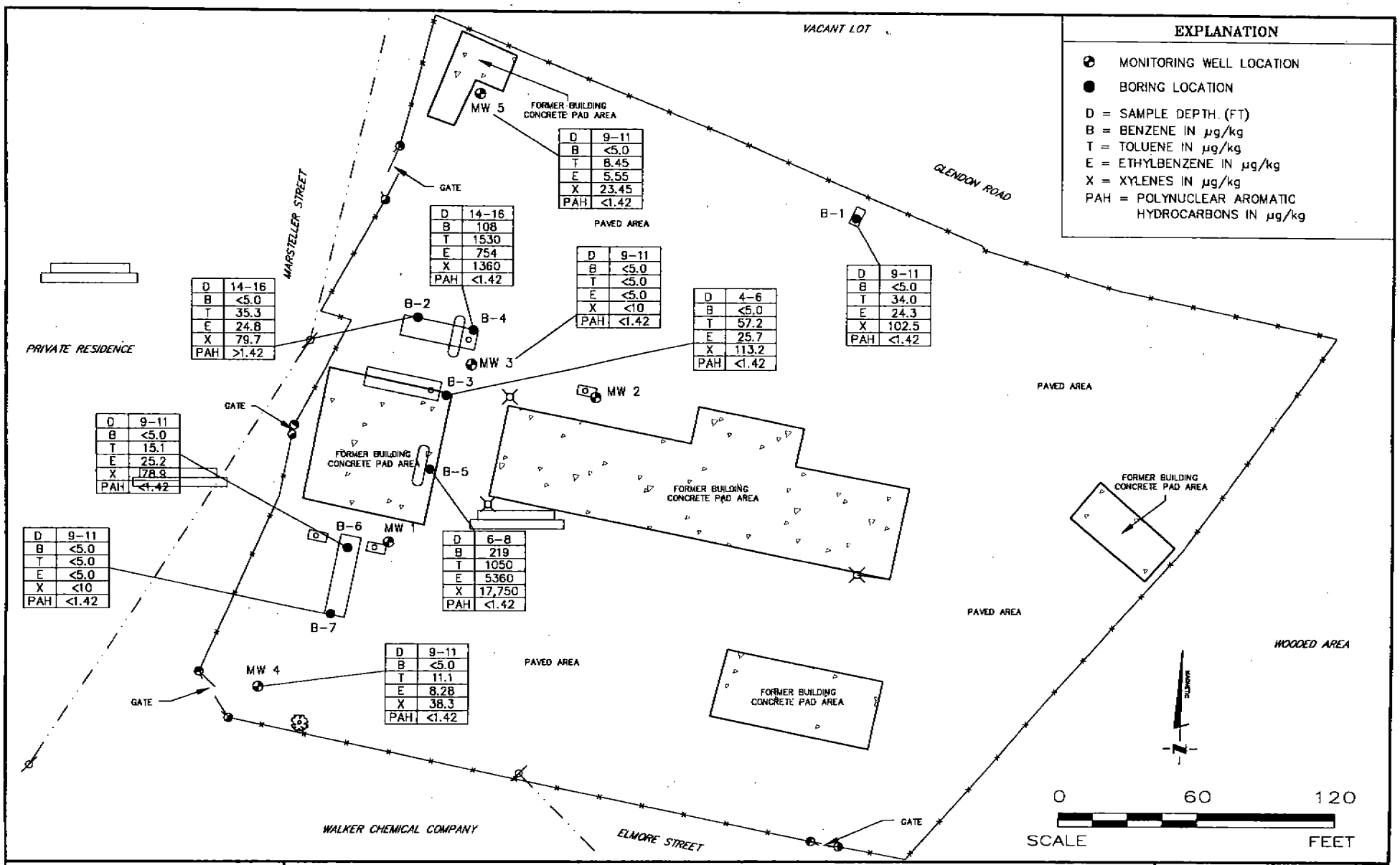
QORE
PROPERTY SCIENCES

SITE PLAN

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
OLD COLUMBIA MANTENANCE FACILITY
RICHLAND COUNTY, SOUTH CAROLINA
UST PREMIT No. 07359

JOB NO.	FIGURE
2633	2
DRAWN BY	CHECKED BY
LN	GP
SCALE	DATE
AS NOTE	09/07/00

SOURCE: ADAPTED FROM WK DICKSON
CAD FILE: 2633S1.DWG



SOIL COC CONCENTRATIONS MAP

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
OLD COLUMBIA MANTENANCE FACILITY
RICHLAND COUNTY, SOUTH CAROLINA
UST PREMIT No. 07359

JOB NO.	FIGURE
2633	4
DRAWN BY	CHECKED BY
LN	GP
SCALE	DATE
AS NOTE	09/07/00

QORE PROPERTY SCIENCES

SOURCE: ADAPTED FROM WK DICKSON
CAD FILE: 2633S1.DWG

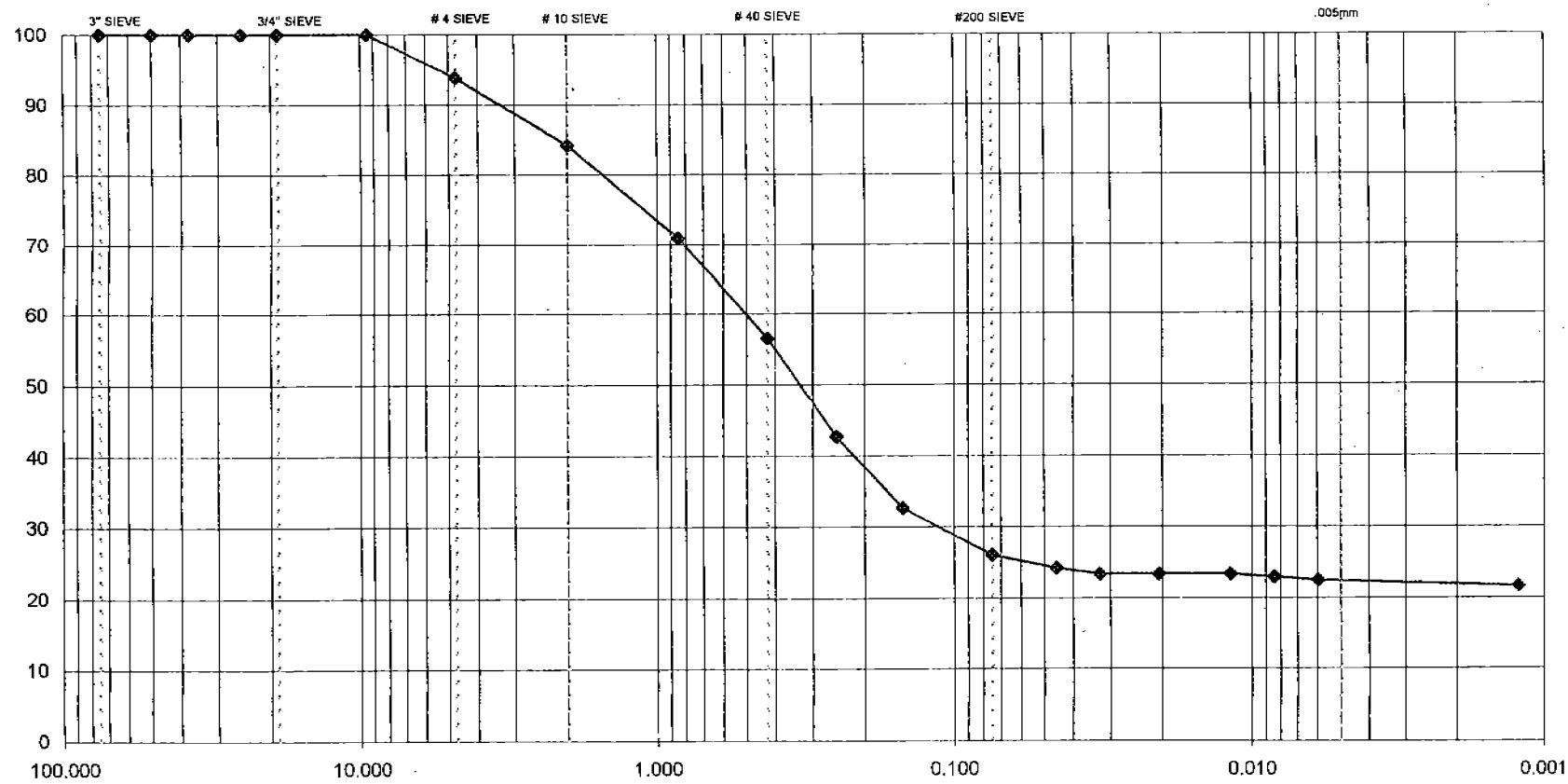
QORE
PROPERTY SCIENCES

GRAIN SIZE DISTRIBUTION TEST REPORT

(ASTM D422)

JOB NAME :	*SCDOT - Columbia Maintenance*						
JOB NO. :	*2633*	**REPORT NO. :**	-	**DATE :**	9/1/00	**REVIEWED BY :**	
BORING / PIT NO. :	*MW-3*	**DEPTH / ELEV. :**	*9-11 Ft.*	**SAMPLE NO. :**	-	**SAMPLE TYPE :**	*Jar*
SAMPLE LOCATION :	-						
SOIL DESCRIPTION :	*Orangish Brown Clayey Fine to Medium SAND*					**SP. GRAVITY, Gs :**	*2.60*
LIQUID LIMIT, % :	-	**PLASTICITY INDEX , % :**	-	**MOISTURE , % :**	11.9	**FINES , % :**	*26*
D10 , MM :	-	**D30 , MM :**	-	**D60 , MM :**	-	**COEFF. OF CURVATURE , C_C :**	-
CLASSIFICATION		**UNIFIED :**	*SM*	**AASHTO :**	-	**COEFF. OF UNIFORMITY , C_U :**	-

GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY



GRAIN SIZE DISTRIBUTION TEST DATA SHEET (ASTM D422)

CORE ENGINEERING SCIENCES

SCDHEC
IFB-37166-11/5/09-EMW
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JOB NAME :	SCDOT - Columbia Maintenance						
JOB NO. :	2633	REPORT NO. :	-	DATE :	9/1/00	REVIEWED BY :	
BORING / PIT NO. :	MW-3	DEPTH / ELEV. :	9-11 Ft.	SAMPLE TYPE :	Jar	SAMPLE NO.:	-
SAMPLE LOCATION :	-						
SOIL DESCRIPTION :	Orangish Brown Clayey Fine to Medium SAND					SP. GR., G_s :	2.6
LIQUID LIMIT, % :	-	PLAS. INDEX, % :	-	MOISTURE, % :	11.9	FINES, % :	26
D_{10}, MM :	-	D30, MM :	-	D60, MM :	-	COEF. OF CURV., C_C :	-
CLASSIFICATION		UNIFIED :	SM	AASHTO :	-	COEF. OF UNFOR., C_U :	-

SPLITTING AIR DRIED / AS RECEIVED MATERIAL ON # 10 SIEVE

AIR DRIED WEIGHT OF TOTAL SAMPLE	140.3	GRAMS	*PAN / BEAKER NO. :*
AIR DRIED WEIGHT RETAINED ON # 10 SIEVE	32.04	GRAMS	*PAN / BEAKER NO. :*
(WASHED)OVEN DRIED WT. RETAINED ON # 10	28.1	GRAMS	*PAN / BEAKER NO. :*
AIR DRIED WEIGHT PASSING ON # 10 SIEVE	112.2	GRAMS	
EQUIVALENT OVEN DRIED WT. PASSING # 10	100.18066	GRAMS	

MOISTURE ON AIR DRIED / AS RECEIVED MATERIAL PASSING # 10

	PAN NO. :	
WT. OF PAN (GRAMS)	100.50	GRAMS
AIR DRIED SOIL+ PAN (GRAMS)	215.60	GRAMS
OVEN DRIED SOIL+ PAN (GRAMS)	203.27	GRAMS
% MOISTURE	11.998	%

AIR DRIED / AS RECEIVED MATERIAL FOR SIEVE & HYDROMETER ANALYSIS

	BEAKER NO. :	
AIR DRIED MATERIAL PASSING # 10	115.1	GRAMS
OVEN DRIED MATERIAL PASSING # 10	102.77	GRAMS
OVEN DRIED MATERIAL REPRES. THE WHOLE SAMPLE	122.06	GRAMS

SIEVE ANALYSIS DATA

	SIEVE SIZE	WEIGHT RETAINED (GRAMS)	MATERIAL RETAINED %	PARTICLE DIAMETER (MM)	MATERIAL PASSING %
COARSER THAN # 10 SIEVE	3"	0.00	0.00	75.00	100.00
	2"	0.00	0.00	50.00	100.00
	1 1/2"	0.00	0.00	37.50	100.00
	1"	0.00	0.00	25.00	100.00
	3/4"	0.00	0.00	19.00	100.00
	3/8"	0.00	0.00	9.50	100.00
	# 4	7.83	6.10	4.75	93.90
	# 10	20.27	15.80	2.000	84.20
FINER THAN # 10 SIEVE	# 20	16.16	29.04	0.850	70.96
	# 40	33.76	43.46	0.425	56.54
	# 60	50.71	57.35	0.250	42.65
	# 100	63.00	67.42	0.150	32.58
	# 200	71.02	73.99	0.075	26.01

HYDROMETER DATA

Date & Time	Zero CORR.	Temp °C	ELAPSED TIME (MINUTES)	READING (Uncorrted)		
9/13/00 9:30	5	22.8	1	34.0	0.0457	24.16
	5	22.8	2	33.0	0.0325	23.33
	5	22.8	5	33.0	0.0206	23.33
	5	22.9	15	33.0	0.0119	23.33
	5	22.9	30	32.5	0.0084	22.91
	5	22.9	60	32.0	0.0060	22.50
	5	22.8	1440	31.0	0.0012	21.66

D H E C
PROMOTE PROTECT PROSPER

Summary of Slug Test
Division of Underground Storage Tank Management

Site Data

UST Permit #: 07359 County: Richland

Facility Name: SCDOT - Old Columbia Maintenance Facility

Slug Data

See Appendix _____ Table _____ Figure _____ for a list of all data measurements. [water level logs, etc. (complete as appropriate)].

Water Level Recovery Data was measured by manually with Water Level indicator [Hermit Data Logger, Manually with Water Level Indicator, etc. (list method)].

Complete the following table for each well tested.

COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in Well(s) Number	MW-4	MW-5		
Initial Rise/Drawdown in Well (feet)	0.37	0.33		
Radius of Well Casing (feet)	0.083	0.083		
Effective Radius of Well (feet)	0.33	0.33		
Static Saturated Aquifer Thickness (feet)	30	30		
Length of Well Screen (feet)	10	10		
Static Height of Water Column in Well (ft)	6.71	5.23		

Calculations

See Appendix _____ Table _____ Figure _____ for calculations (complete as appropriate).

The method for aquifer calculations was Bouwer - Rice (i.e. Bouwer-Rice, Cooper, etc.).

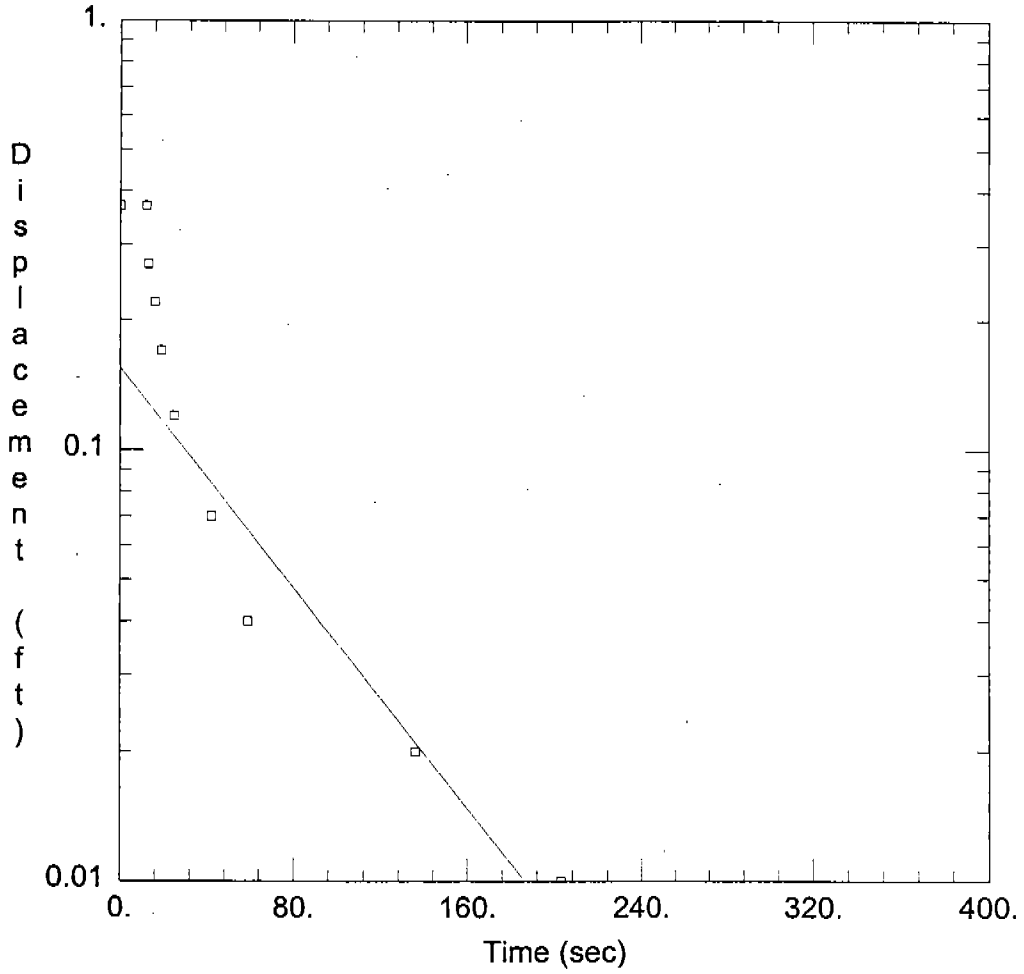
Calculated values by well were as follows:

Slug Test Conducted in Well(s) Number	MW-4	MW-5	
Hydraulic Conductivity	9.02×10^{-5} ft/sec (7.8 ft/day)	2.07×10^{-6} ft/sec (0.18 ft/day)	

Thickness of the aquifer used to calculate hydraulic conductivity was 30 feet.

The aquifer is _____ confined _____ semi-confined X water table (check as appropriate).

The estimated seepage velocity is 285 feet per year based on a hydraulic conductivity of 7.8 ft/day, a hydraulic gradient of 0.025, and a porosity of 25 percent for clayey sand soil (list type i.e., silty sand ,clay, etc).



SCDOT OLD COLUMBIA MAINTENANCE

Data Set: F:\USERS\GENE\SCDOT\2633MW4.AQT
Date: 09/15/00 Time: 10:05:23

PROJECT INFORMATION

Company: QORE Property Sciences
Client: SCDOT
Project: 2633
Test Location: Columbia, South Carolina
Test Well: MW-4
Test Date: August 21, 2000

AQUIFER DATA

Saturated Thickness: 30. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 0.37 ft
Water Column Height: 6.71 ft
Casing Radius: 0.083 ft
Wellbore Radius: 0.33 ft
Screen Length: 6.71 ft
Gravel Pack Porosity: 0.37

SOLUTION

Aquifer Model: Unconfined
K = 9.017E-05 ft/sec

Data Set: F:\USERS\GENE\SCDOT\2633MW4.AQT
Title: SCDOT Old Columbia Maintenance
Date: 09/15/00
Time: 10:05:29

PROJECT INFORMATION

Company: QORE Property Sciences
Client: SCDOT
Project: 2633
Location: Columbia, South Carolina
Test Date: August 21, 2000
Test Well: MW-4

AQUIFER DATA

Saturated Thickness: 30 ft
Anisotropy Ratio (Kz/Kr): 1

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-4

X Location: 0 ft
Y Location: 0 ft

Observation Data

Time (sec)	Displacement (ft)
12.	0.37
13.	0.27
16.	0.22
19.	0.17
25.	0.12
42.	0.07
59.	0.04
136.	0.02
203.	0.01
345.	0.

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	9.017E-05	ft/sec
y0	0.155	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	0.0004716	8.738E-05	ft/sec
y0	0.814	0.1737	ft

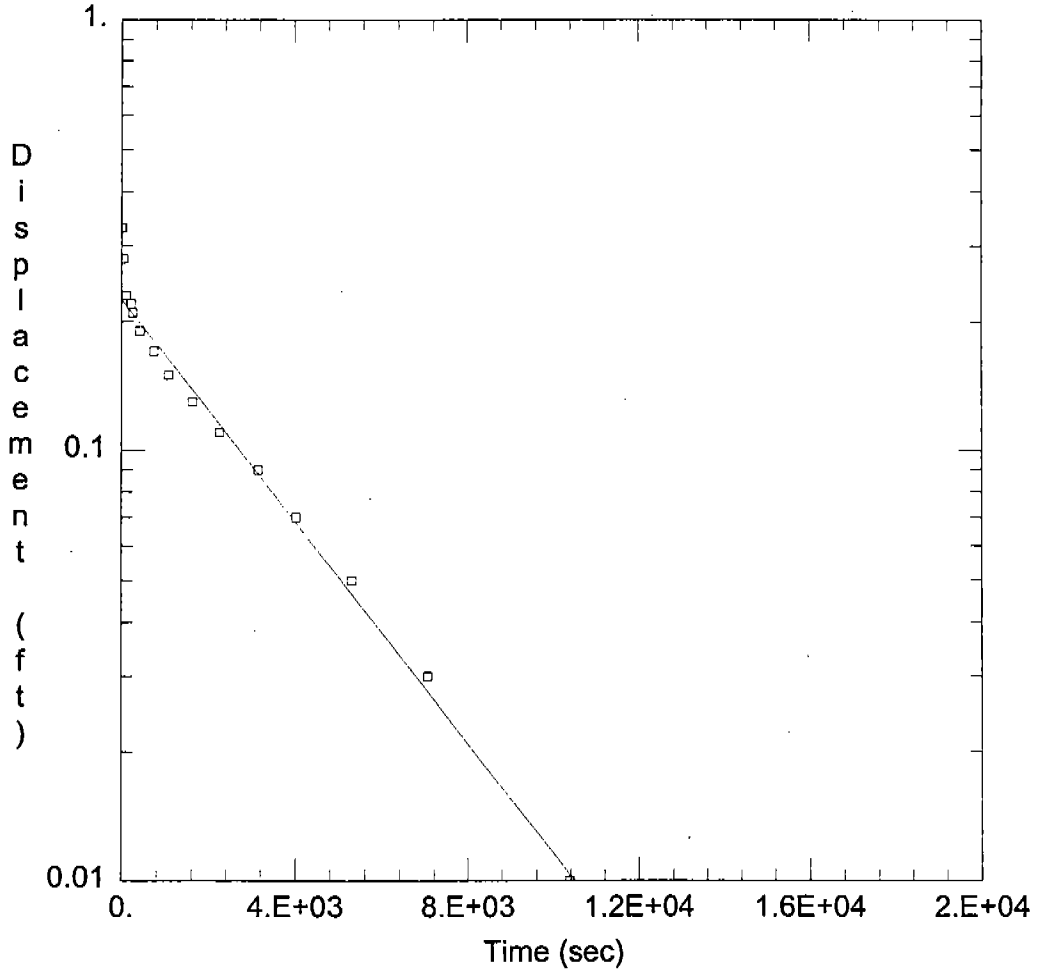
Parameter Correlations

	K	y0
K	1.00	0.97
y0	0.97	1.00

Residual Statistics

for weighted residuals

Sum of Squares ... 0.006616 ft^2
Variance ..... 0.000827 ft^2
Std. Deviation..... 0.02876 ft
Mean ..... 0.008036 ft
No. of Residuals ... 10
No. of Estimates ... 2



SCDOT OLD COLUMBIA MAINTENANCE

Data Set: F:\USERS\GENE\SCDOT\2633MW5.AQT
Date: 09/15/00 Time: 09:53:36

PROJECT INFORMATION

Company: QORE Property Sciences
Client: SCDOT
Project: 2633
Test Location: Columbia, South Carolina
Test Well: MW-5
Test Date: September 12, 2000

AQUIFER DATA

Saturated Thickness: 30. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 0.33 ft
Water Column Height: 5.23 ft
Casing Radius: 0.083 ft
Wellbore Radius: 0.33 ft
Screen Length: 5.23 ft
Gravel Pack Porosity: 0.37

SOLUTION

Aquifer Model: Unconfined
K = 2.074E-06 ft/sec

Data Set: F:\USERS\GENE\SCDOT\2633MW5.AQT
Title: SCDOT Old Columbia Maintenance
Date: 09/15/00
Time: 09:53:44

PROJECT INFORMATION

Company: QORE Property Sciences
Client: SCDOT
Project: 2633
Location: Columbia, South Carolina
Test Date: September 12, 2000
Test Well: MW-5

AQUIFER DATA

Saturated Thickness: 30 ft
Anisotropy Ratio (Kz/Kr): 1

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-5

X Location: 0 ft
Y Location: 0 ft

Observation Data

Time (sec)	Displacement (ft)
14.	0.33
44.	0.28
105.	0.23
215.	0.22
254.	0.21
416.	0.19
734.	0.17
1080.	0.15
1623.	0.13
2256.	0.11
3152.	0.09
4030.	0.07
5306.	0.05
7057.	0.03
1.037E+04	0.01
1.242E+04	0.

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	2.074E-06	ft/sec
y0	0.2247	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	2.748E-06	3.968E-07	ft/sec
y0	0.258	0.01222	ft

Parameter Correlations

	K	y0
K	1.00	0.54
y0	0.54	1.00

Residual Statistics

for weighted residuals

Sum of Squares ... 0.01011 ft^2
Variance ..... 0.0007222 ft^2
Std. Deviation..... 0.02687 ft
Mean ..... 0.002244 ft
No. of Residuals ... 16
No. of Estimates ... 2

TABLE
FIELD PARAMETE
FORMER SCDOT COLUMBIA MAINTENANCE FACILI
COLUMBIA, RICHLAND COUNTY, SOUTH CAROLI
MECI PROJECT NUMBER 02-4
SCDHEC SITE ID NUMBER 073

Well Number	Sample Date	Dissolved Oxygen (mg/l)	Dissolved CO_2 (mg/l)	Temperature (^{o} Celsius)	pH (Initial)	pH (Final)	Conductivity (Initial)	Conductivity (Final)	Ferrous Iron (mg/l)	Depth to Product	Product Thickness	Depth to Water (feet)	Well-head Elevation	Groundwater Elevation
MW-1R	8/20/2002	0.71	200+	23.1	5.60	5.61	76.6	89.5	3.4	---	—	18.15	249.01	230.86
MW-2	8/20/2002	NT	NT	NT	NT	NT	NT	NT	NT	15.82	1.12	16.94	246.62	230.63
MW-3	8/20/2002	0.58	200+	30.1	5.72	5.85	152.5	179.0	3.2	---	—	19.05	249.80	230.75
MW-4	8/20/2002	2.65	100	30.7	4.80	5.23	125.3	126.7	0.0	---	—	17.51	249.15	231.64
MW-5	8/20/2002	0.77	125	23.1	5.87	5.43	48.7	73.2	0.0	---	—	20.08	251.65	231.57
MW-6	8/20/2002	0.98	150	24.1	4.89	6.01	112.2	153.6	1.8	---	—	15.15	242.39	227.24
MW-7	8/20/2002	0.68	200+	24.5	5.67	6.07	2410	2886	4.0	---	—	15.10	244.03	228.93
MW-8	8/20/2002	0.59	200+	25.4	6.22	6.25	1036	951	2.4	---	—	4.68	230.68	226.00
MW-9	8/20/2002	4.98	25	21.6	4.53	5.75	52.8	67.2	0.6	---	—	8.24	226.00	217.76
MW-10	8/20/2002	3.30	100	24.8	4.97	5.50	71.9	83.0	0.0	—	—	14.22	243.68	229.46
MW-11	8/20/2002	3.70	35	21.5	6.70	5.29	115.4	119.0	0.3	---	—	23.80	256.77	232.97
MW-12	8/20/2002	3.44	40	26.5	5.52	6.07	92.0	75.3	0.2	---	—	10.02	240.50	230.48
MW-13	8/20/2002	3.50	45	25.1	5.44	5.89	77.8	102.1	2.0	---	—	3.04	229.74	226.70
MW-14	8/20/2002	1.84	40	21.8	5.08	6.08	54.5	98.0	2.5	---	—	7.80	231.44	223.54
MW-15	8/20/2002	3.70	90	25.8	6.43	6.06	97.6	81.3	0.2	---	—	18.76	225.96	207.20
MW-16	8/20/2002	2.19	40	21.2	6.62	6.92	128.4	159.1	0.0	---	—	5.23	210.30	205.07
MW-17	8/20/2002	2.14	50	22.5	7.50	6.46	76.2	162.7	0.0	—	—	8.56	222.85	214.29
MW-18D	8/20/2002	1.87	20	27.4	6.66	6.36	275.1	133.7	0.2	---	—	36.89	246.81	209.92

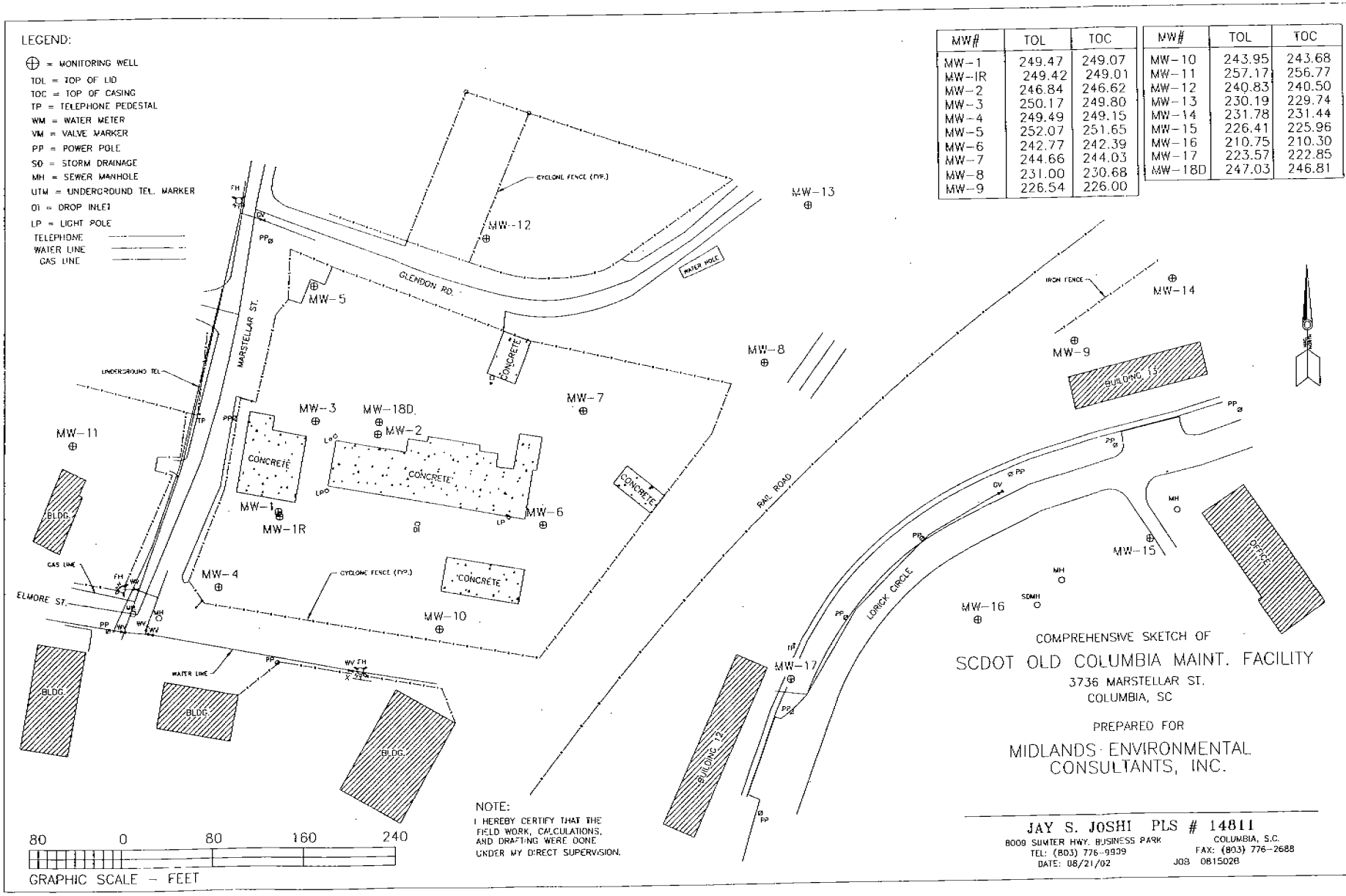
Notes:

1. mg/l = milligrams per liter.
2. Elevations are referenced to an assumed site datum (See Figure 2).
3. Groundwater depths were measured from the top of the PVC riser pipe.
4. Groundwater levels measured 8/20/02.
5. Dissolved oxygen, dissolved carbon dioxide, initial pH, initial conductivity, and temperature measurements obtained 8/19/02.
6. MW-2 contained measurable amount of free phase petroleum product.
7. Groundwater elevation for MW-2 was corrected for free product based upon a specific gravity for fuel of 0.85.
8. NT=Not Tested

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
FORMER SCDOT COLUMBIA MAINTENANCE FACILITY
COLUMBIA, SOUTH CAROLINA
MECI PROJECT NUMBER 02-416
SCDHEC SITE ID NUMBER 07359

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	EDB (µg/l)	Naphthalene (µg/l)	Nitrate (mg/l)	Sulfate (mg/l)	Lead (µg/l)
MW-1R	08/20/02	1.26	BDL	BDL	1.82	3.08	BDL	BDL	BDL	0.7	10	BDL
MW-2	08/20/02	30,100	41,300	3,190	17,670	92,260	408	380	1,150	NT	NT	NT
MW-3	08/20/02	5,590	12,500	1,470	7,570	27,130	416	70	715	0.6	5	54
MW-4	08/20/02	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.6	5	BDL
MW-5	08/20/02	25.7	17.3	1.41	12.99	57.40	BDL	BDL	BDL	0.8	5	BDL
MW-6	08/20/02	1,100	1,710	626	3,330	6,766	1.99	10	51.2	BDL	5	BDL
MW-7	08/20/02	795	72.6	107	131.2	1,105.8	87.7	0.11	48.3	BDL	14	26
MW-8	08/20/02	171	3.48	4.03	7.49	186.00	261	BDL	1.30	BDL	19	200
MW-9	08/20/02	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.0	5	BDL
MW-10	08/20/02	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	10	BDL
MW-11	08/20/02	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	5.2	5	64
MW-12	08/20/02	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.3	6	BDL
MW-13	08/20/02	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.9	6	BDL
MW-14	08/20/02	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.7	10	BDL
MW-15	08/20/02	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.1	6	BDL
MW-16	08/20/02	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.7	8	BDL
MW-17	08/20/02	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.8	6	BDL
MW-18D	08/20/02	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.3	10	6
SW-1	07/25/02	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	NT	NT
SW-2	07/25/02	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	NT	NT

Notes:
1. BDL = Below Practical Quantitative Limits
2. µg/l = micrograms per liter
3. mg/l = milligrams per liter
4. MTBE = Methyl-Tertiary-Butyl Ether
5. See Appendix B for Laboratory Detection Limits
6. NT=Not Tested



MW#	TOL	TOC
MW-1	249.47	249.07
MW-1R	249.42	249.01
MW-2	246.84	246.62
MW-3	250.17	249.80
MW-4	249.49	249.15
MW-5	252.07	251.65
MW-6	242.77	242.39
MW-7	244.66	244.03
MW-8	231.00	230.68
MW-9	226.54	226.00

MW#	TOL	TOC
MW-10	243.95	243.68
MW-11	257.17	256.77
MW-12	240.83	240.50
MW-13	230.19	229.74
MW-14	231.78	231.44
MW-15	226.41	225.96
MW-16	210.75	210.30
MW-17	223.57	222.85
MW-18D	247.03	246.81

NOTE:
I HEREBY CERTIFY THAT THE FIELD WORK, CALCULATIONS, AND DRAFTING WERE DONE UNDER MY DIRECT SUPERVISION.

COMPREHENSIVE SKETCH OF

SCDOT OLD COLUMBIA MAINT. FACILITY

3736 MARSTELLAR ST.
COLUMBIA, SC

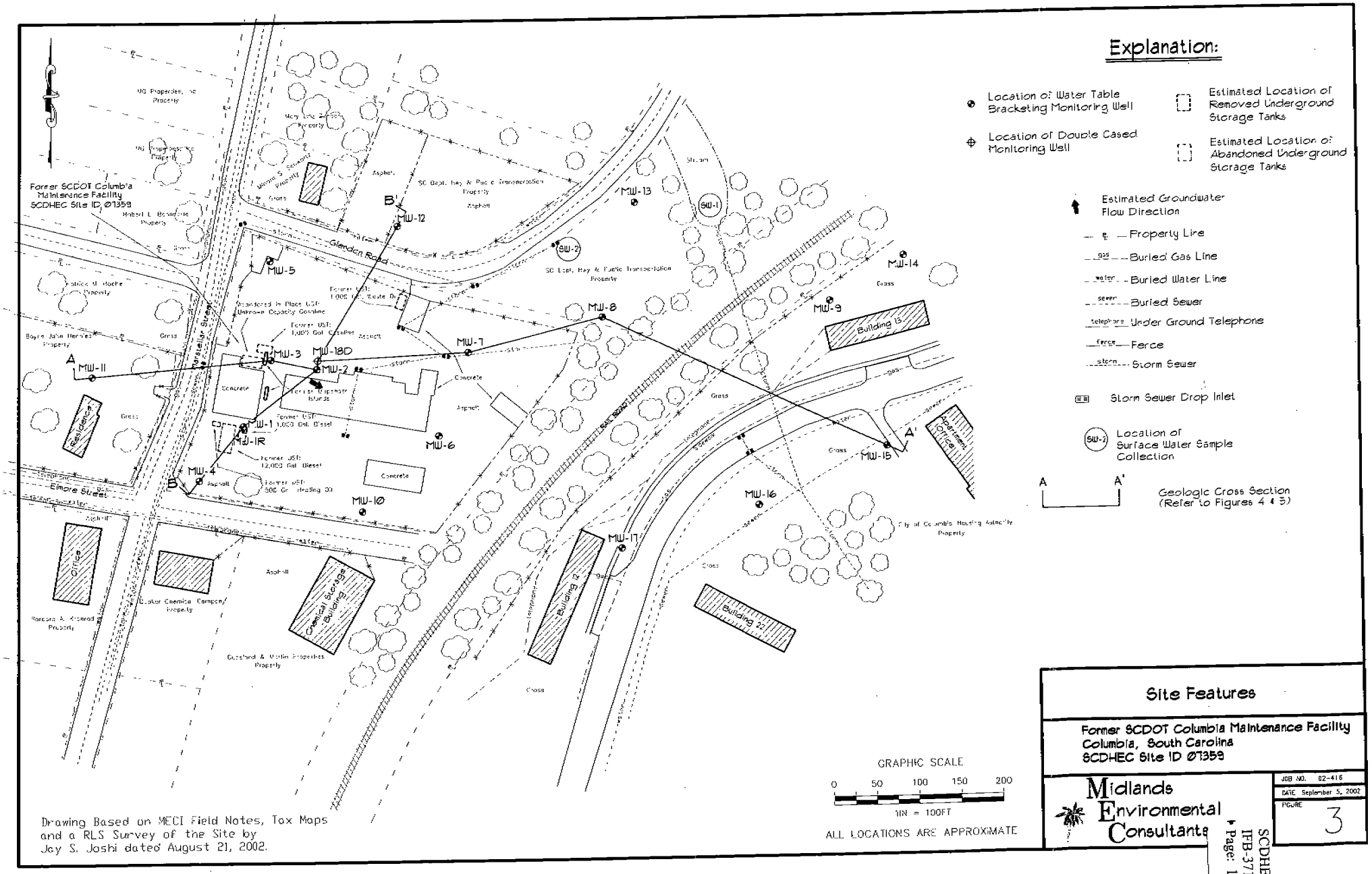
PREPARED FOR

MIDLANDS ENVIRONMENTAL CONSULTANTS, INC.

JAY S. JOSHI PLS # 14811
8009 SUMTER HWY. BUSINESS PARK COLUMBIA, S.C.
TEL: (803) 776-9909 FAX: (803) 776-2688
DATE: 08/21/02 JOB 0815028

FIGURE 2

SCDHEC
IFB-37166-11/5/09-EMW
Page: 104



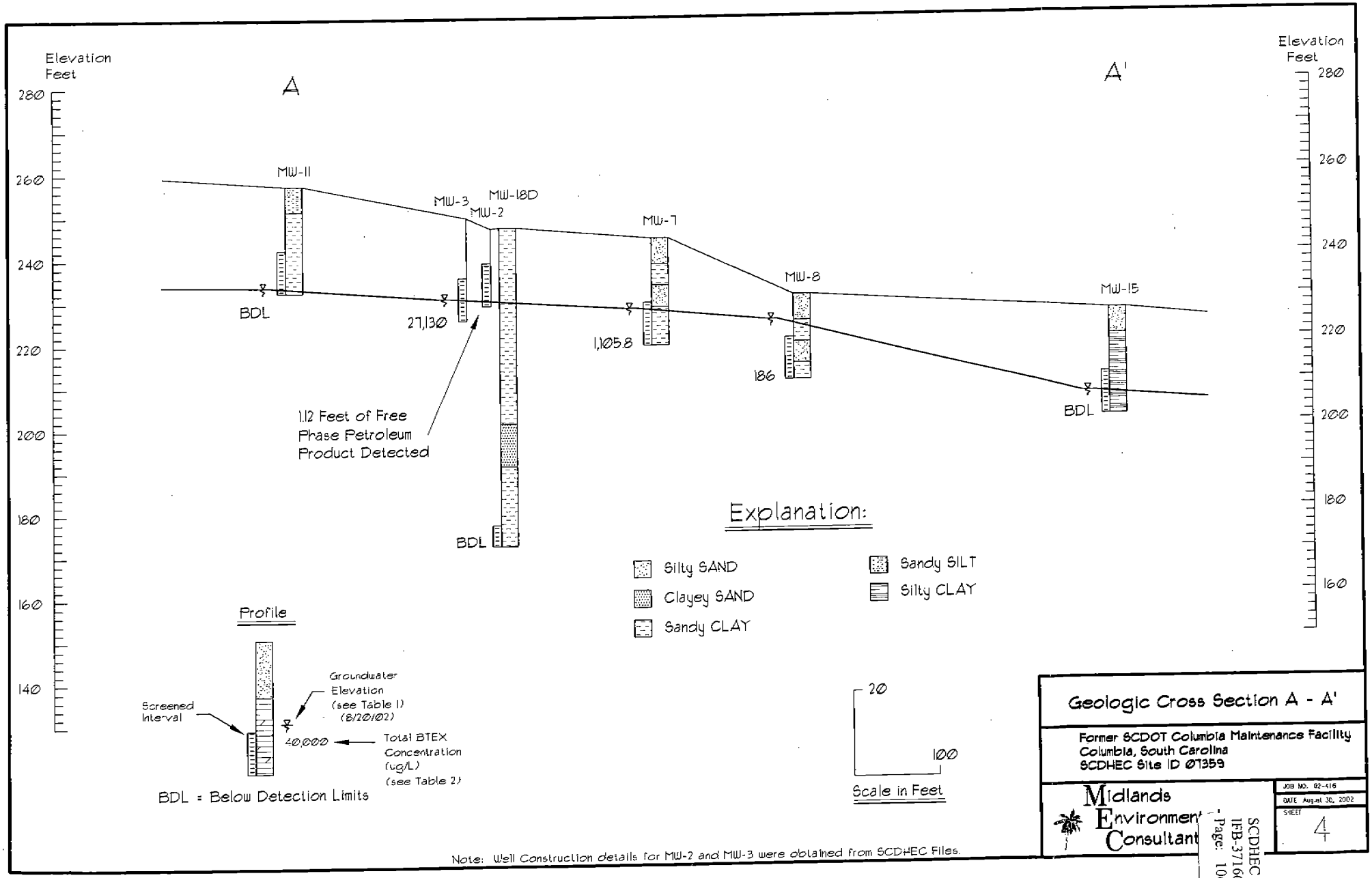
Site Features

Former SCDOT Columbia Maintenance Facility
Columbia, South Carolina
SCDHEC Site ID #7359

Midlands Environmental Consultants

JOB NO. 02-416
DATE September 5, 2002
FIGURE 3

SCDHEC
IFB-37166-11/5/09-EMW
Page: 105



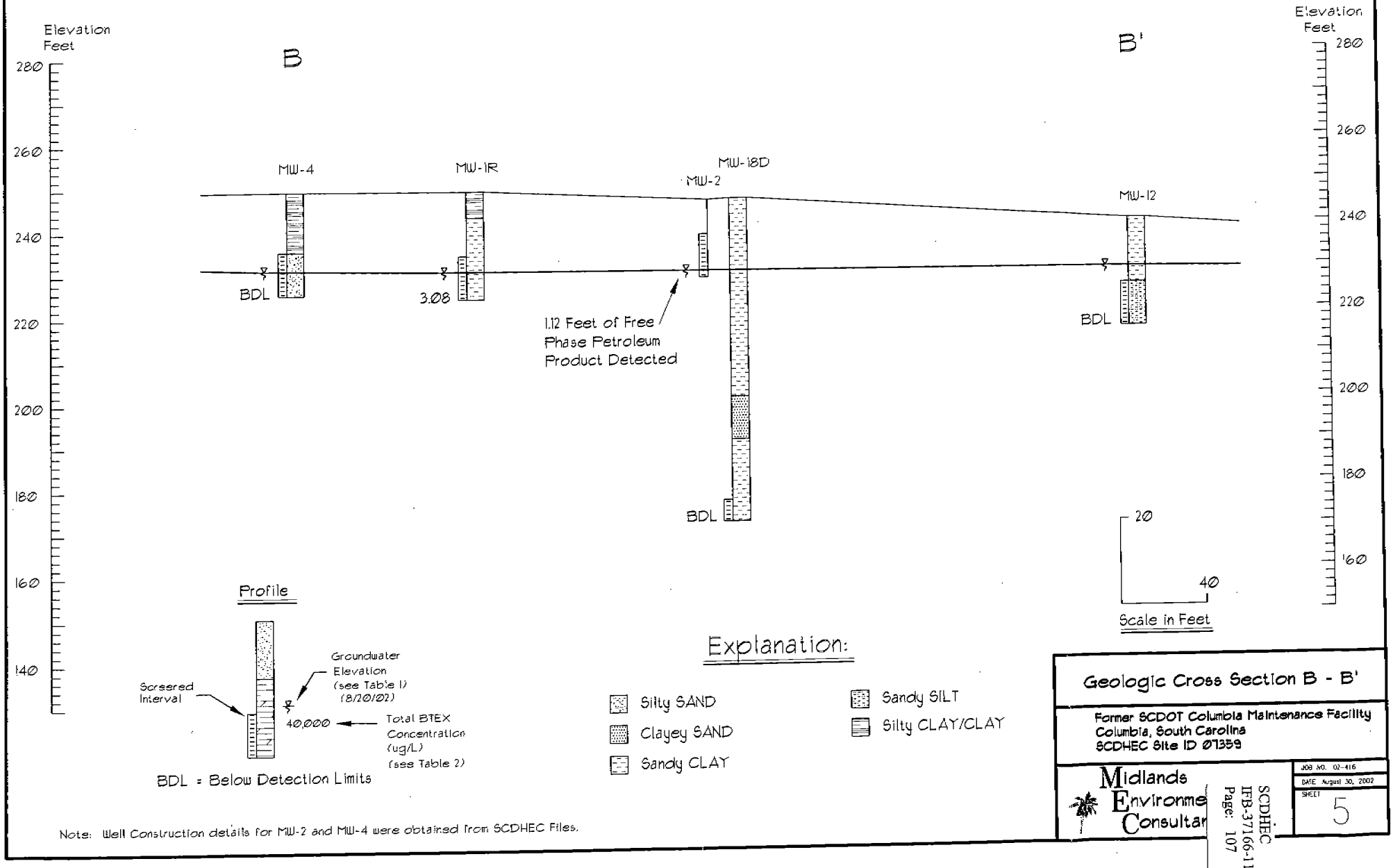
Note: Well Construction details for MW-2 and MW-3 were obtained from SCDHEC Files.

Geologic Cross Section A - A'

Former SCDOT Columbia Maintenance Facility
Columbia, South Carolina
SCDHEC Site ID #1359

Midlands Environmental Consultants

JOB NO. 02-416
DATE August 30, 2002
SHEET 4



Note: Well Construction details for MW-2 and MW-4 were obtained from SCDHEC Files.

Geologic Cross Section B - B'

Former SCDOT Columbia Maintenance Facility
Columbia, South Carolina
SCDHEC Site ID 07359

Midlands Environmental Consultants

JOB NO. 02-416
DATE August 30, 2002
SHEET 5

SCDHEC
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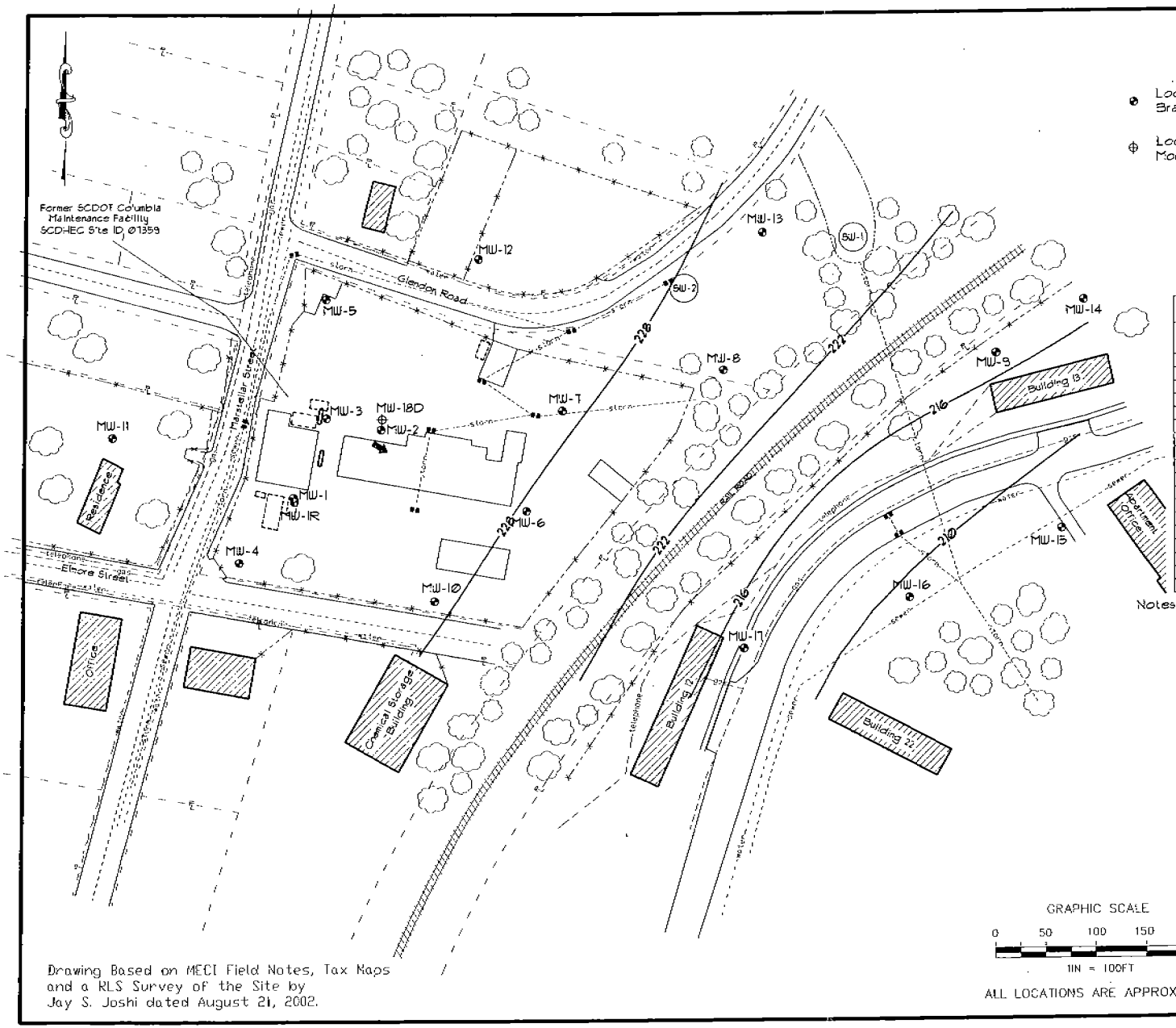

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated August 21, 2002.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Abandoned Underground Storage Tanks
- Ground-Water Elevation Contour (feet)

Groundwater Elevation Data

Well #	Depth to Water (feet)	Depth to Product (feet)	Product Thickness	Well-head Elevation	Groundwater Elevation
MW-1R	18.15	---	---	249.01	230.86
MW-2	16.94	15.82	1.12	246.62	230.63
MW-3	19.05	---	---	249.80	230.75
MW-4	17.51	---	---	249.15	231.64
MW-5	20.08	---	---	251.65	231.57
MW-6	15.15	---	---	242.39	227.24
MW-7	15.10	---	---	244.03	228.93
MW-8	4.68	---	---	230.68	226.00
MW-9	8.24	---	---	226.00	217.76
MW-10	14.22	---	---	243.68	229.46
MW-11	23.80	---	---	256.77	232.97
MW-12	10.02	---	---	240.50	230.48
MW-13	3.04	---	---	229.74	226.70
MW-14	7.90	---	---	231.44	223.54
MW-15	18.76	---	---	225.96	207.20
MW-16	5.23	---	---	210.30	205.07
MW-17	8.56	---	---	222.85	214.29
MW-18D	36.89	---	---	246.81	209.95

Notes:
Depth to groundwater measured on August 20, 2002
Contour Interval = 6.0 Feet
Double Cased Well MW-18D and MW-14 were not used in contouring.
Groundwater elevation for MW-2 corrected for the presence of free phase petroleum product
Site Datum Based on Assumed USGS Spot Elevation (see Figure 2).
Ground Water Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT
ALL LOCATIONS ARE APPROXIMATE

Groundwater Contour Map

Former SCDOT Columbia Maintenance Facility
Columbia, South Carolina
SCDHEC Site ID #1359

Midlands Environmental Consultants

JOB NO. 02-418
DATE September 5, 2002
FIGURE 6

SCDHEC
IFB-37166-11/5/09-EMW
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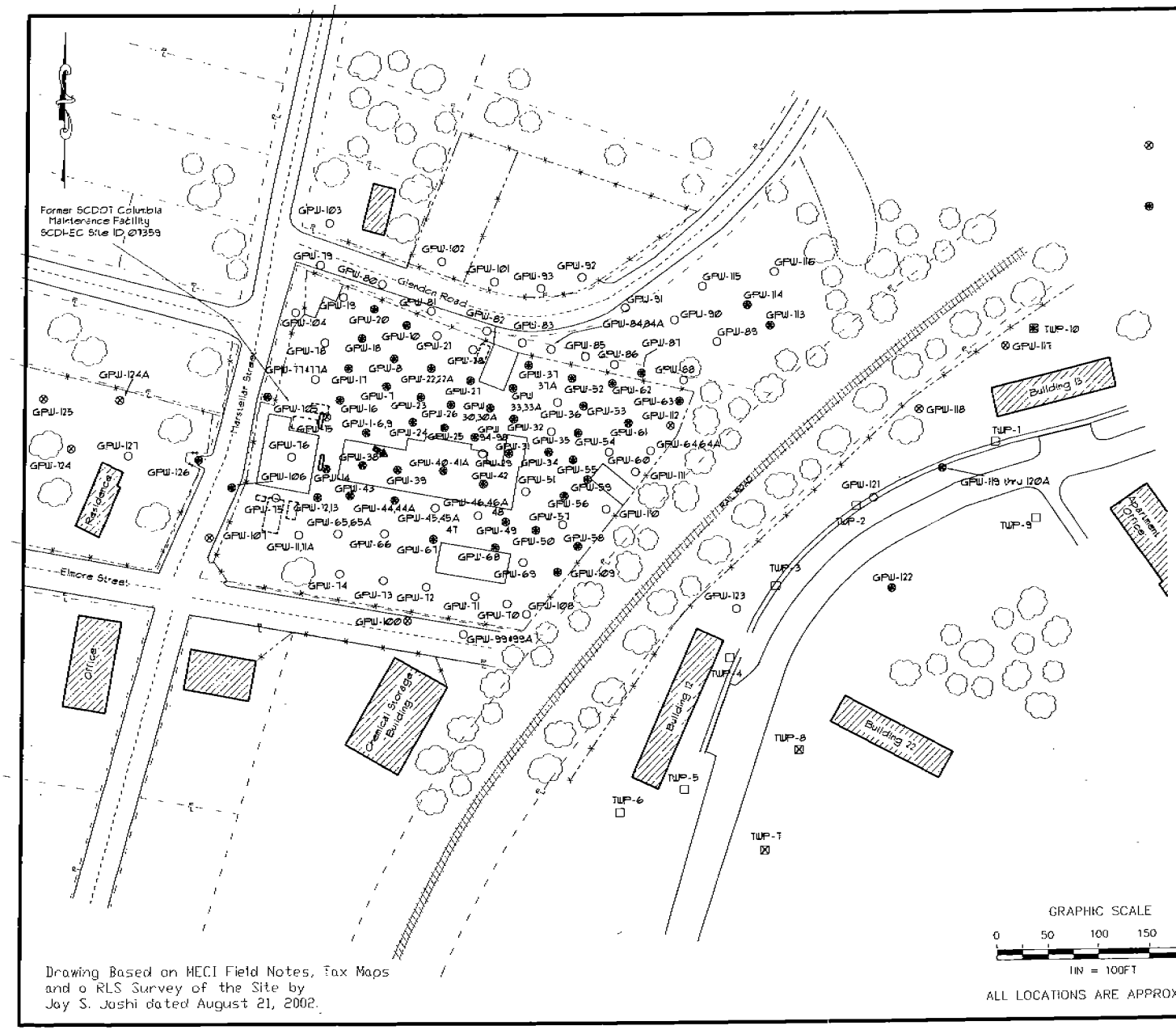

Explanation:

- ⊗ Geoprobe/ImmunoAssay Screening Location Dry Hole
- ○ Geoprobe/ImmunoAssay Screening Location Not Detected
- ⊗ Geoprobe/ImmunoAssay Screening Location BTEX Detected
- ▣ Temp. Well/ImmunoAssay Screening Location BTEX Detected
- □ Temp. Well/ImmunoAssay Screening Location Not Detected

•See Table 7A for Field Screening Results

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated August 21, 2002.

Field Screening Test Results

Former SCDOT Columbia Maintenance Facility
Columbia, South Carolina
SCDHEC Site ID #7359

Midlands Environmental Consultants

Job No. 02-416
DATE September 5, 2002
FIGURE 7

SCDHEC IFB-37166-11/5/09-EMW Page: 109

Immunoassay Screening Results

Sample ID	Depth (feet)	Result	Sample ID	Depth (feet)	Result	Sample ID	Depth (feet)	Result	Sample ID	Depth (feet)	Result
GPW-1	20-24	1.94	GPW-36	20-24	BDL	GPW-67	24-28	1.05	GPW-102	23-27	BDL
GPW-2	25-29	0.31	GPW-37	20-24	DRY HOLE	GPW-68	20-24	0.06	GPW-103	24-28	BDL
GPW-3	30-34	1.19	GPW-37A	21-25	0.04	GPW-69	20-24	BDL	GPW-104	24-28	BDL
GPW-4	35-39	0.13	GPW-38	20-24	0.24	GPW-70	20-24	BDL	GPW-105	24-28	0.03
GPW-5	40-44	0.02	GPW-39	20-24	0.80	GPW-71	21-25	BDL	GPW-106	24-28	0.13
GPW-6	45-49	0.03	GPW-40	20-24	DRY HOLE	GPW-72	24-28	BDL	GPW-107	5-9 PR	DRY HOLE
GPW-7	21-25	0.41	GPW-40A	21-25	DRY HOLE	GPW-73	24-28	BDL	GPW-108	25-29	BDL
GPW-8	21-25	0.38	GPW-41	22-26	DRY HOLE	GPW-74	25-29	BDL	GPW-109	25-29	0.14
GPW-9	48-52 PR	0.20	GPW-41A	26-30	2.39	GPW-75	21-25	BDL	GPW-110	29-33	BDL
GPW-10	21-25	0.08	GPW-42	20-24	3.88	GPW-76	21-25	BDL	GPW-111	25-29	BDL
GPW-11	22-26	DRY HOLE	GPW-43	20-24	4.82	GPW-77	21-25	DRY HOLE	GPW-112	25-29	DRY HOLE
GPW-11A	26-30	BDL	GPW-44	20-24	DRY HOLE	GPW-77A	23-27	BDL	GPW-113	11-15	0.34
GPW-12	24-28	0.03	GPW-44A	21-25	3.70	GPW-78	22-26	BDL	GPW-114	11-15	0.02
GPW-13	21-25	0.13	GPW-45	21-25	DRY HOLE	GPW-79	24-28	BDL	GPW-115	11-15	BDL
GPW-14	21-25	0.04	GPW-45A	26-30	DRY HOLE	GPW-80	23-27	BDL	GPW-116	11-15	BDL
GPW-15	6-10 PR	DRY HOLE	GPW-46	20-24	DRY HOLE	GPW-81	21-25	BDL	GPW-117	14-18 PR	DRY HOLE
GPW-16	21-25	2.06	GPW-46A	26-30	DRY HOLE	GPW-82	16-20	BDL	GPW-118	16-20 PR	DRY HOLE
GPW-17	21-25	3.03	GPW-47	28-32	BDL	GPW-83	11-15	BDL	GPW-119	20-24	DRY HOLE
GPW-18	21-25	0.02	GPW-48	27-31	BDL	GPW-84	8-12	DRY HOLE	GPW-119A	25-29	DRY HOLE
GPW-19	21-25	BDL	GPW-49	20-24	0.10	GPW-84A	11-15	BDL	GPW-120	26-30	0.03
GPW-20	21-25	0.09	GPW-50	20-24	0.03	GPW-85	9-13	DRY HOLE	GPW-120A	29-33	BDL
GPW-21	21-25	BDL	GPW-51	21-25	BDL	GPW-85A	11-15	BDL	GPW-121	29-33	BDL
GPW-22	20-24	DRY HOLE	GPW-52	20-24	1.46	GPW-86	11-15	BDL	GPW-122	16-20	0.03
GPW-22A	21-25	1.02	GPW-53	19-23	2.03	GPW-87	11-15	0.11	GPW-123	29-33	BDL
GPW-23	20-24	0.05	GPW-54	18-22	1.57	GPW-88	11-15	BDL	GPW-124	2-6 PR	DRY HOLE
GPW-24	20-24	5.83	GPW-55	19-23	0.54	GPW-89	11-15	BDL	GPW-124A	2-6 PR	DRY HOLE
GPW-25	20-24	3.16	GPW-56	19-23	0.13	GPW-90	11-15	BDL	GPW-125	26-30	DRY HOLE
GPW-26	20-24	2.09	GPW-57	20-24	BDL	GPW-91	11-15	BDL	GPW-126	24-28	0.06
GPW-27	20-24	0.05	GPW-58	21-25	0.98	GPW-92	11-15	BDL	GPW-127	26-30	BDL
GPW-28	20-24	BDL	GPW-59	21-25	1.32	GPW-93	11-15	BDL	TWP-1	19 PR	BDL
GPW-29	20-24	BDL	GPW-60	21-25	BDL	GPW-94	20-24	0.18	TWP-2	29	BDL
GPW-30	20-24	DRY HOLE	GPW-61	21-25	1.94	GPW-95	25-29	3.55	TWP-3	20	BDL
GPW-30A	21-25	0.02	GPW-62	21-25	2.76	GPW-96	30-34	BDL	TWP-4	20	BDL
GPW-31	20-24	0.30	GPW-63	21-25	0.48	GPW-97	35-39	BDL	TWP-5	20	BDL
GPW-32	20-24	0.04	GPW-64	21-25	DRY HOLE	GPW-98	40-44	BDL	TWP-6	20	BDL
GPW-33	20-24	DRY HOLE	GPW-64A	23-27	BDL	GPW-99	24-28	DRY HOLE	TWP-7	20	DRY HOLE
GPW-33A	21-25	BDL	GPW-65	20-24	DRY HOLE	GPW-99A	26-30	BDL	TWP-8	20	DRY HOLE
GPW-34	20-24	0.62	GPW-65A	22-26	BDL	GPW-100	24-28	DRY HOLE	TWP-9	20	0.06
GPW-35	20-24	BDL	GPW-66	23-27	BDL	GPW-101	20-24	BDL	TWP-10	13 PR	0.02

Notes: Samples Collected on July 8 through July 30, 2002
PR = Probe Refusal

Field Screening Test Results

Former SCDOT Columbia Maintenance Facility
Columbia, South Carolina
SCDHEC Site ID 01359

Midlands Environmental Consultants

JOB NO. 02-116
DATE September 5, 2002
FIGURE 7A

SCDHEC
IFB-37166-11/5/09-EMW
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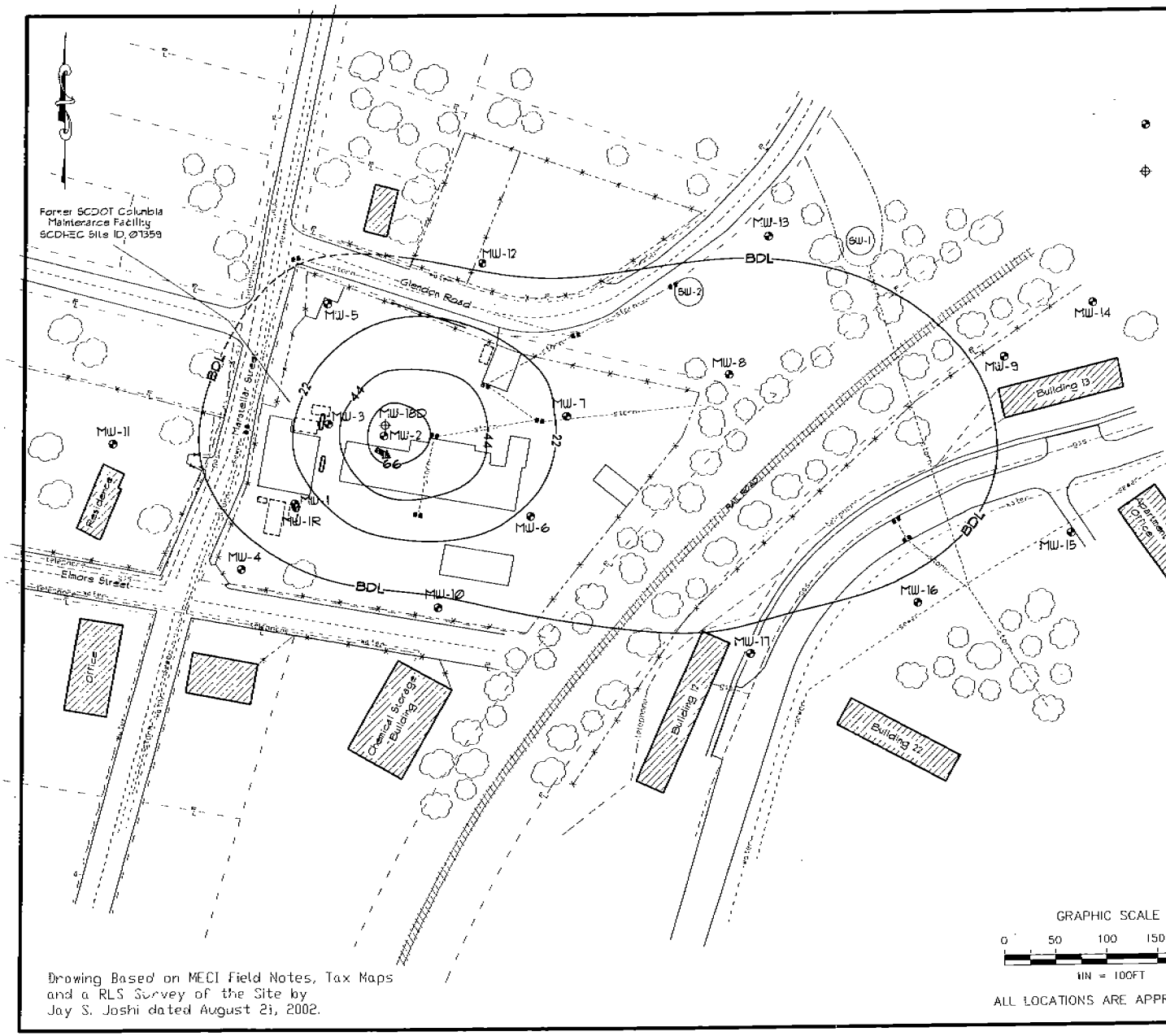

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Abandoned Underground Storage Tanks
- Total BTEX Concentration Contour (mg/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Naphthalene (ug/l)	EDB (ug/l)
MW-1R	1.26	BDL	BDL	1.82	3.08	BDL	BDL	BDL
MW-2	30,100	41,300	3,190	17,670	92,260	408	1,150	380
MW-3	5,590	12,500	1,470	7,570	27,130	416	715	70
MW-4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-5	25.7	17.3	1.41	12.99	57.40	BDL	BDL	BDL
MW-6	1,100	1,710	626	3,330	6,766	1.99	51.2	10
MW-7	795	72.6	107	131.2	1,105.8	87.7	48.3	0.11
MW-8	171	3.48	4.03	7.49	186.00	261	1.30	BDL
MW-9	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-11	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-14	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-16	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-17	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-180	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:

Groundwater samples collected August 20, 2002.

Contour Interval = 22 mg/l

Free Phase Petroleum Product detected in MW-2 at a thickness of 1.12 feet.

Double Cased Well MW-180 was not used in contouring.

Surface Water samples collected 7/25/02.

BDL = Below Detection Limits

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated August 21, 2002.

Total BTEX Isopleth Map

Former SCDOT Columbia Maintenance Facility
Columbia, South Carolina
SCDHEC Site ID #1359

Midlands Environmental Consultants

JOB NO. 02-416
DATE September 5, 2002
FIGURE 8

SCDHEC
IFB-37166-11/5/09-EMW
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SUMMARY of SLUG TEST (page 1 of 2)

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID # 07359 COUNTY Richland

FACILITY NAME Former SCDOT Maintenance Facility

SLUG DATA

See Appendix _____ Table _____ Figure _____ for a list of all data measurements.
(water level logs, etc.)(Complete as appropriate).
Water Level Recovery Data was measured by ORS Interface Probe .
(Hermit Data Logger, Manually with Water Level Indicator, etc.)(List Method)
Complete the following table for each well tested.
COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in well(s) number	MW-6	MW-7	MW-8	
Initial Rise/Drawdown in well (feet)	4.55	4.40	8.82	
Radius of well casing (feet)	0.083	0.083	0.083	
Effective Radius of Well (feet)	0.75	0.75	0.75	
Static Saturated Aquifer Thickness (feet)	9.85	9.90	15.32	
Length of Well Screen (feet)	12	12	12	
Static Height of Water Column in Well (ft)	9.85	9.90	15.32	

Calculations

See Appendix _____ Table _____ Figure _____ for calculations
The method for aquifer calculations was NAVFAC
Calculated values by well were as follows:

Slug Test Conducted in Well(s) number	MW-6	MW-7	MW-8		
Hydraulic Conductivity	2.51E-06	4.75E-04	1.55E-04		cm/sec

Thickness of the aquifer used to calculate hydraulic conductivity was N/A feet.
The aquifer is _____ confined _____ semi-confined _____ water table (Check as Appropriate).
SEE SHEET 3
The estimated seepage velocity is 86 feet per year based on a hydraulic conductivity of 2.11E-04 cm/sec, a hydraulic gradient of 5.14E-02 ft/ft, and a porosity of 13 percent for Silty SAND soil.

SUMMARY of SLUG TEST

Groundwater Seepage Velocity Calculations (page 2 of 2)

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID # 07359 COUNTY Richland

FACILITY NAME Former SCDOT Maintenance Facility

Hydraulic Conductivity (average)

Hydraulic Conductivity Average = 2.11E-04 cm/sec
(MW-6,MW-7 &MW-8)

5.98E-01 ft./day

4.15E-04 ft./min

Groundwater Seepage Velocity

V = (Ki)/(Ne) * Enter Values in Shaded Areas Only
(ft./day)

where:

K = Hydraulic Conductivity (ft./day)
I = Hydraulic Gradient (ft./ft.)
Ne = Effective Permeability

K =	5.98E-01	ft./day
I =	5.14E-02	ft./ft.
Ne =	0.13	

V = **2.4E-01** ft./day **86** ft./year

Groundwater Seepage Velocity Calculations

Inflow for Condition A Well MW-6.xls

Inflow Permeability Calculation

Former SCDOT Columbia Maintenance Facility

Test Performed: 8/20/02

MW-6

Type II (Uncased Well)

Static: 15.15 ft

*Enter Values in Shaded Areas Only

Time (min)	Depth	delta H	Ht/Ho
0.33	19.70	4.55	1.00
0.41	19.68	4.53	1.00
0.75	19.62	4.47	0.98
1.00	19.60	4.45	0.98
1.50	19.54	4.39	0.96
2.00	19.50	4.35	0.96
3.00	19.44	4.29	0.94
5.00	19.34	4.19	0.92
7.00	19.27	4.12	0.91
10.00	19.20	4.05	0.89
20.00	19.06	3.91	0.86
30.00	18.95	3.80	0.84
40.00	18.85	3.70	0.81
50.00	18.77	3.62	0.80
60.00	18.66	3.51	0.77

Information from data and plot of Ht/Ho vs time

Bore Hole Diameter: 8 in

Total Depth of Well: 25 ft

Stand Pipe Area: 50.27 in^2

0.35 ft^2

Coordinates from Graph for Slope Calc:

H1/Ho: 0.86

t1: 20.00 min

H2/Ho: 0.80

t2: 50.00 min

H1:	3.91	H2:	3.64
t1:	20.00	t2:	50.00
Radius	R:	4.00 in	
Radius	R:	0.33 ft	
Depth	D:	9.85 ft	
	R/D:	0.034	
	D/R:	29.55	

Shape Factor Determination Value: 0.616599 *

*This value is used in conjunction with

Figure 13 of Reference [1] to obtain the shape factor.

Shape Factor S: 3.9

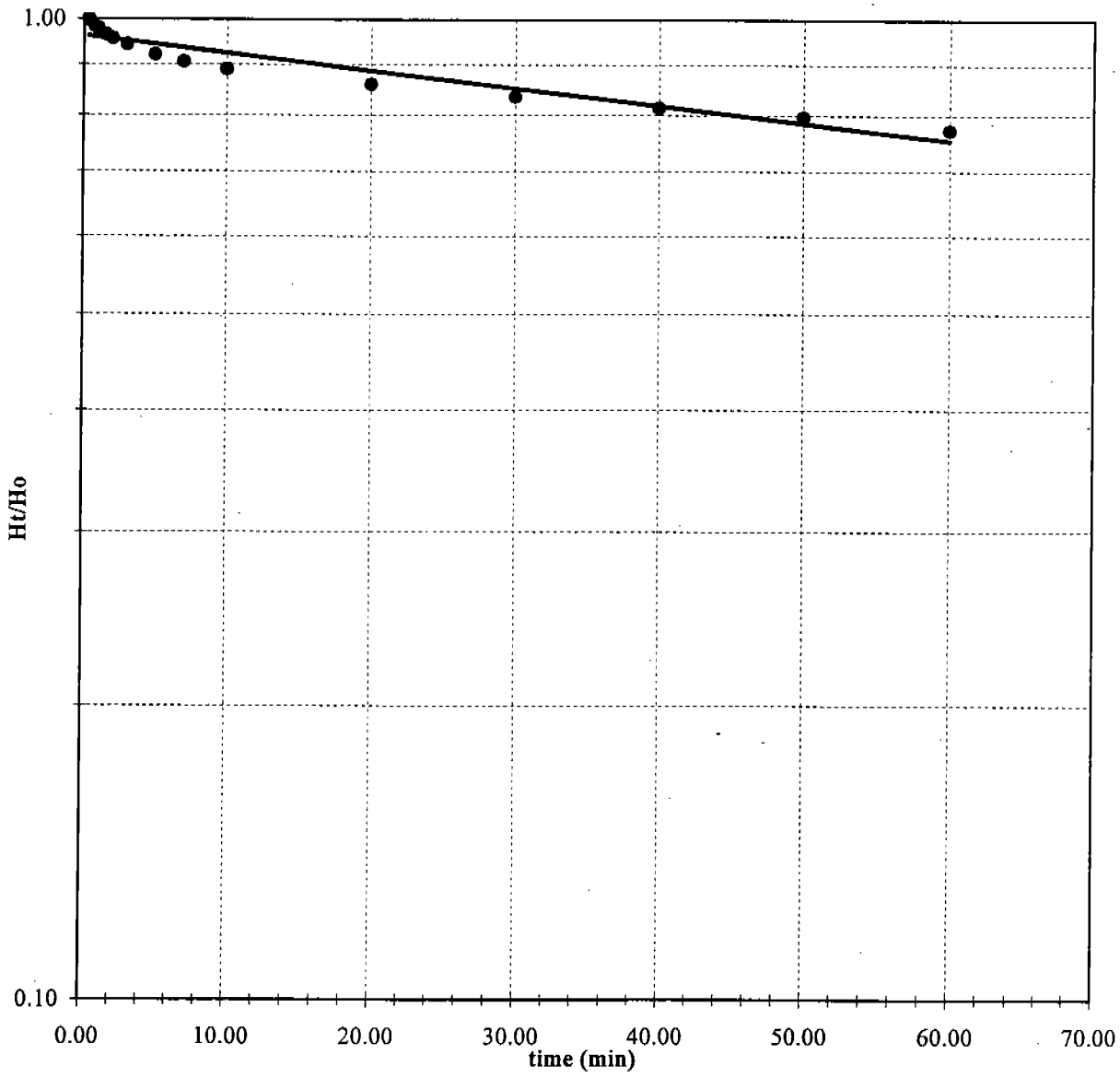
Coeff. of Permeability (K):

4.94E-06 ft/min

7.11E-03 ft/day

2.51E-06 cm/sec

Ref [1]: Naval Fac. Engr. Command, Design Manual 7.01, soil Mechanics, Condition A.



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Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

Inflow Permeability Calculation

Former SCDOT Columbia Maintenance Facility

Test Performed: 8/20/2002

MW-7

Type II (Uncased Well)

Static: 15.10 ft

*Enter Values in Shaded Areas Only

Time (min)	Depth	delta H	Ht/Ho
0.50	19.50	4.40	1.00
0.75	18.70	3.60	0.82
1.00	18.32	3.22	0.73
1.50	17.50	2.40	0.55
2.00	17.05	1.95	0.44
2.50	16.36	1.26	0.29
3.00	15.93	0.83	0.19
4.00	15.72	0.62	0.14

Information from data and plot of Ht/Ho vs time

Bore Hole Diameter:	8	in
Total Depth of Well:	25	ft
Stand Pipe Area:	50.27	in^2
	0.35	ft^2

Coordinates from Graph for Slope Calc:

H1/Ho:	0.82		
t1:	0.75	min	
H2/Ho:	0.29		
t2:	2.50	min	

H1:	3.61	H2:	1.28
t1:	0.75	t2:	2.50

Radius	R:	4.00	in
Radius	R:	0.33	ft
Depth	D:	9.90	ft
	R/D:	0.034	
	D/R:	29.70	

Shape Factor Determination Value: 0.753333 *

*This value is used in conjunction with

Figure 13 of Reference [1] to obtain the shape factor.

Shape Factor S: 3.0

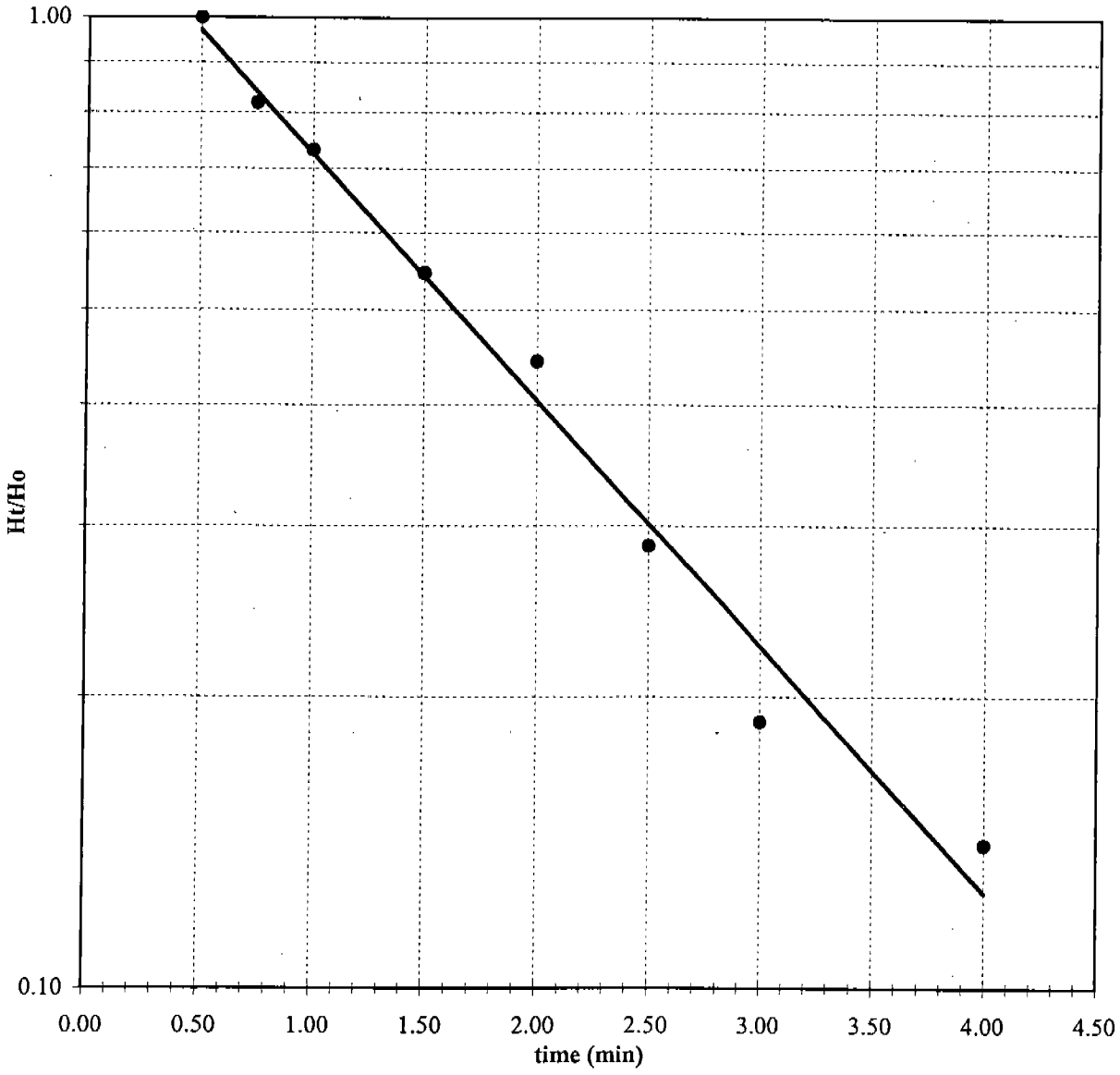
Coeff. of Permeability (K):

9.35E-04 ft/min

1.35E+00 ft/day

4.75E-04 cm/sec

Ref [1]: Naval Fac. Engr. Command, Design Manual 7.01, soil Mechanics, Condition A.



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Inflow Permeability Calculation

Former SCDOT Columbia Maintenance Facility

Test Performed: 8/20/02

MW-8

Type II (Uncased Well)

Static: 4.68 ft

*Enter Values in Shaded Areas Only

Time (min)	Depth	delta H	Ht/Ho
0.50	13.50	8.82	1.00
1.00	12.44	7.76	0.88
1.50	11.72	7.04	0.80
2.00	11.23	6.55	0.74
2.50	10.81	6.13	0.70
3.00	9.98	5.30	0.60
4.00	8.96	4.28	0.49
5.00	7.86	3.18	0.36

Information from data and plot of Ht/Ho vs time

Bore Hole Diameter:	8	in
Total Depth of Well:	20	ft
Stand Pipe Area:	50.27	in^2
	0.35	ft^2

Coordinates from Graph for Slope Calc:

H1/Ho:	0.74	
t1:	2.00	min
H2/Ho:	0.49	
t2:	4.00	min

H1:	6.53	H2:	4.32
t1:	2.00	t2:	4.00

Radius	R:	4.00	in
Radius	R:	0.33	ft
Depth	D:	15.32	ft
	R/D:	0.022	
	D/R:	45.96	

Shape Factor Determination Value: 0.645933 *

*This value is used in conjunction with

Figure 13 of Reference [1] to obtain the shape factor.

Shape Factor S: 4.9

Coeff. of Permeability (K):

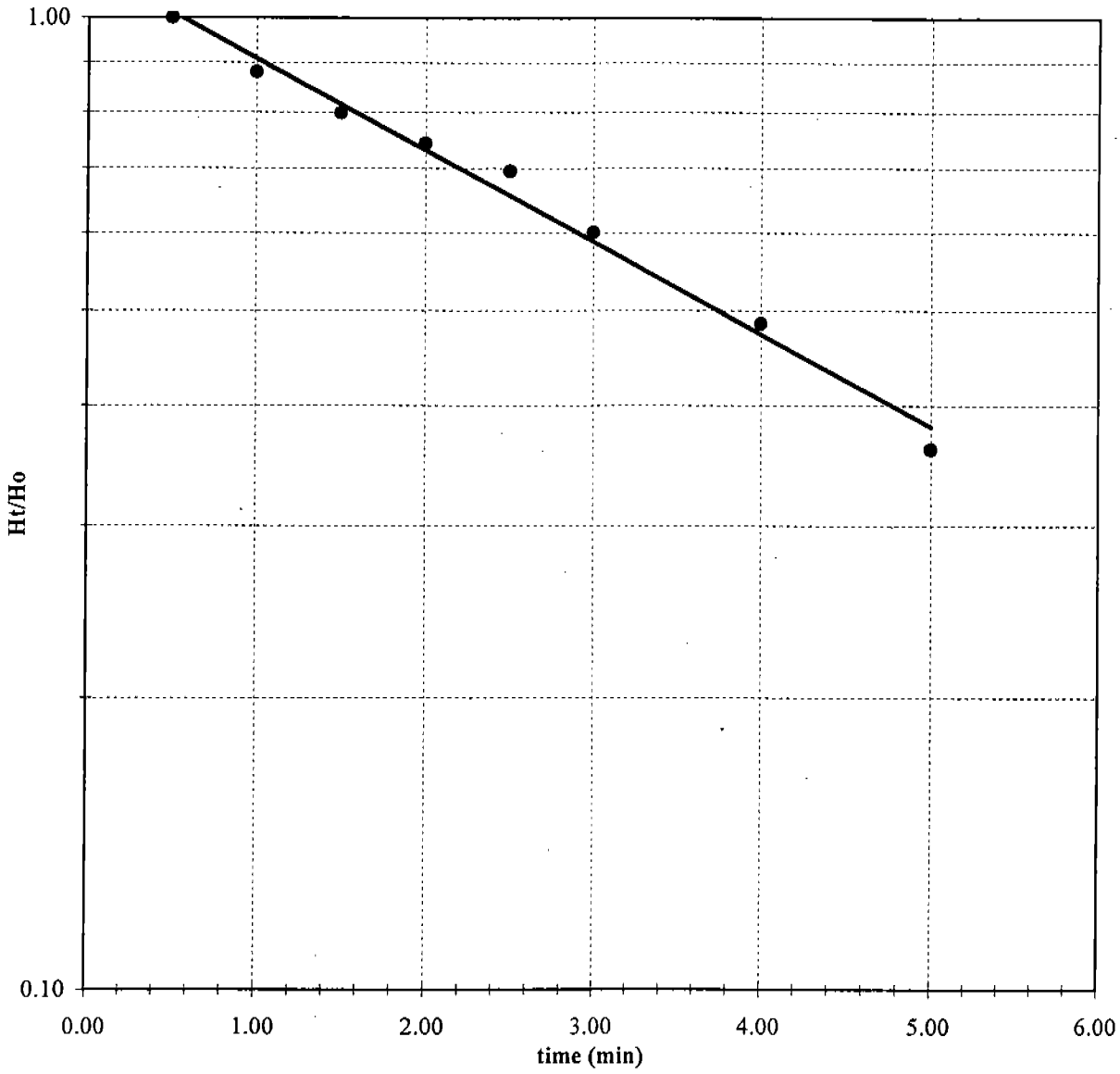
3.06E-04 ft/min

4.41E-01 ft/day

1.55E-04 cm/sec

Ref [1]: Naval Fac. Engr. Command, Design Manual 7.01, soil Mechanics, Condition A.

Inflow for Condition A Well MW-8.xls



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Lexington, South Carolina 29073
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Historical CoC Concentrations
UST Permit # 07359
Facility Name Columbia Maintenance Facility

MW-1	08/21/00	8/20/2002	9/25/2003	4/20/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	Not	1.26	34	5.2	3.2	6.1	3.6	1.9
Toluene	Sampled	BDL	10	<5	<5	<5	<5	<5
Ethylbenzene		BDL	<5	<5	<5	<5	<5	<5
Xylene		1.82	<13.8	<15	<15	<15	<15	<15
Naphthalene		BDL	4.5	14	18	9.3	16	13
MtBE		BDL	<5	<5	<5	<5	<5	<5
EDB		BDL	<0.02		<0.02		<0.02	<0.02
Lead		BDL	11					
1,2 DCA					<5			<5
TAME						<10		<10
TAA						15		<10
EtBA						<10		<10
TBF						<20		<20
DIPE						<5		<5
ethanol						<20		<20
EtBE						<10		<10
TBA						<10		<10
Nitrate		700						
Sulfate		10000						
Ferrous Iron		NS						

MW-2	08/21/00	8/20/2002	9/25/2003	4/20/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	Not	30100	Not	Not	3100	2100	Not	Not
Toluene	Sampled	41300	Sampled	Sampled	10000	6700	sampled	sampled
Ethylbenzene	0.96' FP	3190	2.15' FP	0.05' FP	780	510	0.02' FP	0.01' FP
Xylene		17670			4300	2800		
Naphthalene		1150			380	<500		
MtBE		408			<50	<500		
EDB		380			61			
1,2 DCA					<50			
TAME						<1000		
TAA						1400		
EtBA						<1000		
TBF						<2000		
DIPE						<500		
ethanol						<2000		
EtBE						<1000		
TBA						<500		
Lead		NS						
Nitrate		NS						
Sulfate		NS						
Ferrous Iron		NS						

MW-2	Nov-04	0.02'	(AFVR)			
	Feb-06	0.02'	(AFVR)			
	4/26/2006	0.03'	(AFVR)			
	9/3/2006	0.02'	(AFVR)	0.01'	(post-AFVR)	
	10/14/2006	0.02'	(AFVR)	0.01'	(post-AFVR)	
MW-2R	8/8/2008	0.21'	(AFVR)			
	8/18/2008	No FP	(AFVR)			

UST Permit # 07359
Facility Name Columbia Maintenance Facility

MW-3	08/21/00	8/20/2002	9/25/2003	4/20/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	7475	5590	3900	7600	7000	1400	5600	2300
Toluene	9794	12500	16000	24000	25000	5400	16000	10000
Ethylbenzene	1024	1470	1900	2200	1300	780	1200	950
Xylene	1773	7570	11000	11600	1390	5900	8500	6500
Naphthalene	<1	715	680	690	1700	570	750	770
MtBE	540	416	<5	<250	<1000	<250	<250	<500
EDB	NS	70	19		90		170	25
Lead	25	54	110					
1,2 DCA					<1000			<500
TAME						<500	<500	<1000
TAA						1200	3400	1700
EtBA						<500	<500	<1000
TBF						<1000	<1000	<2000
DIPE						<250	<250	<500
ethanol						<1000	<1000	<2000
EtBE						<500	<500	<1000
TBA						<500	<500	<1000
Nitrate	170	600						
Sulfate	2,730	5000						
Ferrous Iron	2500	NS						

MW-4	08/21/00	8/20/2002	9/25/2003	4/20/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	3.21	BDL	<5	<5	<5	<5	<5	<5
Toluene	5.98	BDL	<5	<5	<5	<5	<5	<5
Ethylbenzene	<1	BDL	<5	<5	<5	<5	<5	<5
Xylene	1.5	BDL	<15	<15	<15	<15	<15	<15
Naphthalene	24	BDL	38	<5	<5	<5	<5	<5
MtBE	<1	BDL	<5	<5	<5	<5	<5	<5
EDB	NS	BDL	<0.02		<0.02		<0.02	<0.02
Lead	28	BDL	<2.2					
1,2 DCA					<5			<5
TAME						<10		<10
TAA						<10		<10
EtBA						<10		<10
TBF						<20		<20
DIPE						<5		<5
ethanol						<20		<20
EtBE						<10		<10
TBA						<10		<10
Nitrate	1030	600						
Sulfate	2,290	5000						
Ferrous Iron	1,300	NS						

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MW-5	08/21/00	8/20/2002	9/25/2003	4/20/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	2.42	25.7	46	30	25	57	33	40
Toluene	3.37	17.3	11	<5	<5	4.7	2.8	<5
Ethylbenzene	<1	1.41	1.7	<5	<5	1.7	<5	<5
Xylene	<1	12.99	31.5	13.3	12.4	40	22.5	25.2
Naphthalene	<1	BDL	44	3.8J	<5	<5	<5	<5
MtBE	<1	BDL	<5	<5	<5	<5	<5	<5
EDB	NS	BDL	<0.02		<0.02		<0.02	<0.02
Lead	<5	BDL	<5					
1,2 DCA					<5			<5
TAME						<10	<10	<10
TAA						530	290	720
EtBA						<10	<10	<10
TBF						<20	<20	<20
DIPE						<5	<5	<5
ethanol						<20	<20	<20
EtBE						<10	<10	<10
TBA						<10	<10	<10
Nitrate	1,190	800						
Sulfate	4,640	5000						
Ferrous Iron	<30	NS						

MW-6	08/21/00	8/20/2002	9/25/2003	4/20/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	no	1100	940	990	710	470	400	300
Toluene	well	1710	1100	1100	830	200	350	84
Ethylbenzene		626	640	670	580	570	380	380
Xylene		3330	3200	2790	2060	1720	1030	780
Naphthalene		51.2	200	160	380	240	200	250
MtBE		1.99	<5	<25	<50	<25	<25	<5
EDB		10	3.2		3.4		1	0.19
Lead		BDL	9					
1,2 DCA					<50			<5
TAME						<50	<50	<10
TAA						1000	810	930
EtBA						<50	<50	<10
TBF						<100	<100	<20
DIPE						<25	<25	<5
ethanol						<100	<100	<20
EtBE						<50	<50	<10
TBA						<50	<50	31
Nitrate		BDL						
Sulfate		5000						
Ferrous Iron		NS						

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MW-7	08/21/00	8/20/2002	9/25/2003	4/20/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	no	795	6100	3800	6600	4700	1900	130
Toluene	well	72.6	5700	2000	5100	2900	840	9.9
Ethylbenzene		107	540	520	830	560	220	16
Xylene		131.2	2600	1690	3000	1780	670	22.1
Naphthalene		48.3	<500	170	650	180	78	10
MtBE		87.7	250	360	300	250	95	28
EDB		0.11	0.055		0.23		<0.02	<0.02
Lead		26	73					
1,2 DCA					<250			<5
TAME						<500	<10	<10
TAA						4700	3300	680
EtBA						<500	<10	<10
TBF						<1000	<20	<20
DIPE						300	110	40
ethanol						<1000	<20	<20
EtBE						<500	<10	<10
TBA						620	270	84
Nitrate		BDL						
Sulfate		1400						
Ferrous Iron		NS						

MW-8	08/21/00	8/20/2002	9/25/2003	4/19/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	no	171	<5	30	<5	<5	<5	<5
Toluene	well	3.48	<5	<5	<5	<5	<5	<5
Ethylbenzene		4.03	<5	<5	<5	<5	<5	<5
Xylene		7.49	<15	<15	<15	<15	<15	<15
Naphthalene		1.3	<5	<5	6.4	<5	<5	<5
MtBE		261	53	81	78	9.5	28	9.7
EDB		BDL	<0.02		<0.02		<0.02	<0.02
Lead		200	2600					
1,2 DCA					<5			<5
TAME						<10	<10	<10
TAA						100	430	180
EtBA						<10	<10	<10
TBF						<20	<20	<20
DIPE						9.4	24	8.9
ethanol						<20	<20	<20
EtBE						<10	<10	<10
TBA						15	85	29
Nitrate		BDL						
Sulfate		1900						
Ferrous Iron		NS						

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MW-9	08/21/00	8/20/2002	9/25/2003	4/19/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	no	BDL	<5	<5	<5	<5	<5	<5
Toluene	well	BDL	<5	<5	<5	<5	<5	<5
Ethylbenzene		BDL	<5	<5	<5	<5	<5	<5
Xylene		BDL	<15	<15	<15	<15	<15	<15
Naphthalene		BDL	4.3	<5	<5	<5	<5	<5
MtBE		BDL	<5	<5	<5	<5	<5	<5
EDB		BDL	<0.02		<0.02		<0.02	<0.02
Lead		BDL	22					
1,2 DCA					<5			<5
TAME						<10		<10
TAA						<10		<10
EtBA						<10		<10
TBF						<20		<20
DIPE						<5		<5
ethanol						<20		<20
EtBE						<10		<10
TBA						<10		<10
Xylene								
Nitrate		1000						
Sulfate		5000						
Ferrous Iron		NS						

MW-10	08/21/00	8/20/2002	9/25/2003	4/19/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	no	BDL	<5	<5	<5	<5	<5	<5
Toluene	well	BDL	<5	<5	<5	<5	<5	<5
Ethylbenzene		BDL	<5	<5	<5	<5	<5	<5
Xylene		BDL	<15	<15	<15	<15	<15	<15
Naphthalene		BDL	<5	3.1J	<5	<5	<5	<5
MtBE		BDL	<5	<5	<5	<5	<5	<5
EDB		BDL	<0.02		<0.02		<0.02	<0.02
Lead		BDL	7.6					
1,2 DCA					<5			<5
TAME						<10		<10
TAA						<10		<10
EtBA						<10		<10
TBF						<20		<20
DIPE						<5		<5
ethanol						<20		<20
EtBE						<10		<10
TBA						<10		<10
Nitrate		BDL						
Sulfate		10000						
Ferrous Iron		NS						

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MW-11	08/21/00	8/20/2002	9/25/2003	4/19/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	no	BDL	<5	not	not	<5	<5	<5
Toluene	well	BDL	<5	sampled	sampled	<5	<5	<5
Ethylbenzene		BDL	<5	inaccess.		<5	<5	<5
Xylene		BDL	<15			<15	<15	<15
Naphthalene		BDL	<5			<5	<5	<5
MtBE		BDL	<5			<5	<5	<5
EDB		BDL	<0.02				<0.02	<0.02
Lead		BDL	5.1					
1,2 DCA								<5
TAME						<10		<10
TAA						<10		<10
EtBA						<10		<10
TBF						<20		<20
DIPE						<5		<5
ethanol						<20		<20
EtBE						<10		<10
TBA						<10		<10
Nitrate		5200						
Sulfate		5000						
Ferrous Iron		NS						

MW-12	08/21/00	8/20/2002	9/25/2003	4/19/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	no	BDL	<5	<5	<5	<5	<5	<5
Toluene	well	BDL	<5	<5	<5	<5	<5	<5
Ethylbenzene		BDL	<5	<5	<5	<5	<5	<5
Xylene		BDL	<15	<15	<15	<15	<15	<15
Naphthalene		BDL	<5	<5	<5	<5	<5	<5
MtBE		BDL	<5	<5	<5	<5	<5	<5
EDB		BDL	<0.02		<0.02		<0.02	<0.02
Lead		BDL	18					
1,2 DCA					<5			<5
TAME						<10		<10
TAA						<10		<10
EtBA						<10		<10
TBF						<20		<20
DIPE						<5		<5
ethanol						<20		<20
EtBE						<10		<10
TBA						<10		<10
Nitrate		1300						
Sulfate		6000						
Ferrous Iron		NS						

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MW-13	08/21/00	8/20/2002	9/25/2003	4/19/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	no	BDL	<5	<5	<5	<5	<5	<5
Toluene	well	BDL	<5	<5	<5	<5	<5	<5
Ethylbenzene		BDL	<5	<5	<5	<5	<5	<5
Xylene		BDL	<15	<15	<15	<15	<15	<15
Naphthalene		BDL	<5	<5	<5	<5	<5	<5
MtBE		BDL	<5	<5	<5	<5	<5	14
EDB		BDL	<0.02		<0.02		<0.02	<0.02
Lead		BDL	33					
1,2 DCA					<5			<5
TAME						<10		<10
TAA						<10		280
EtBA						<10		<10
TBF						<20		<20
DIPE						<5		13
ethanol						<20		<20
EtBE						<10		<10
TBA						<10		37
Nitrate		900						
Sulfate		6000						
Ferrous Iron		NS						

MW-14	08/21/00	8/20/2002	9/25/2003	4/19/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	no	BDL	<5	<5	<5	<5	<5	<5
Toluene	well	BDL	<5	<5	<5	<5	<5	<5
Ethylbenzene		BDL	<5	<5	<5	<5	<5	<5
Xylene		BDL	<15	<15	<15	<15	<15	<15
Naphthalene		BDL	<5	<5	<5	<5	<5	<5
MtBE		BDL	<5	<5	<5	<5	<5	<5
EDB		BDL	<0.02		<0.02		<0.02	<0.02
Lead		BDL	8.5					
1,2 DCA					<5			<5
TAME						<10		<10
TAA						<10		<10
EtBA						<10		<10
TBF						<20		<20
DIPE						<5		<5
ethanol						<20		<20
EtBE						<10		<10
TBA						<10		<10
Nitrate		1700						
Sulfate		10000						
Ferrous Iron		NS						

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MW-15	08/21/00	8/20/2002	9/25/2003	4/19/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	no	BDL	<5	<5	<5	<5	<5	<5
Toluene	well	BDL	<5	<5	<5	<5	<5	<5
Ethylbenzene		BDL	<5	<5	<5	<5	<5	<5
Xylene		BDL	<15	<15	<15	<15	<15	<15
Naphthalene		BDL	<5	<5	<5	<5	<5	<5
MtBE		BDL	<5	<5	<5	<5	<5	<5
EDB		BDL	<0.02		<0.02		<0.02	<0.02
Lead		BDL	3.1					
1,2 DCA					<5			<5
TAME						<10		<10
TAA						<10		<10
EtBA						<10		<10
TBF						<20		<20
DIPE						<5		<5
ethanol						<20		<20
EtBE						<10		<10
TBA						<10		<10
Nitrate		100						
Sulfate		6000						
Ferrous Iron		NS						

MW-16	08/21/00	8/20/2002	9/25/2003	4/19/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	no	BDL	<5	<5	<5	<5	<5	<5
Toluene	well	BDL	<5	<5	2.4	<5	<5	<5
Ethylbenzene		BDL	<5	<5	<5	<5	<5	<5
Xylene		BDL	<15	<15	<15	<15	<15	<15
Naphthalene		BDL	<5	<5	<5	<5	<5	<5
MtBE		BDL	<5	<5	<5	<5	<5	<5
EDB		BDL	<0.02		<0.02		<0.02	<0.02
Lead		BDL	11					
1,2 DCA					<5			<5
TAME						<10		<10
TAA						<10		<10
EtBA						<10		<10
TBF						<20		<20
DIPE						<5		<5
ethanol						<20		<20
EtBE						<10		<10
TBA						<10		<10
Nitrate		700						
Sulfate		8000						
Ferrous Iron		NS						

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MW-17	08/21/00	8/20/2002	9/25/2003	4/19/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	no	BDL	<5	<5	2J	<5	<5	<5
Toluene	well	BDL	<5	<5	<5	<5	<5	<5
Ethylbenzene		BDL	<5	<5	<5	<5	<5	<5
Xylene		BDL	<15	<15	<15	<15	<15	<15
Naphthalene		BDL	<5	<5	<5	<5	<5	<5
MtBE		BDL	<5	<5	<5	<5	<5	<5
EDB		BDL	0.027		0.067		<0.02	<0.02
Lead		BDL	26					
1,2 DCA					2.5J			<5
TAME						<10		<10
TAA						<10		<10
EtBA						<10		<10
TBF						<20		<20
DIPE						<5		<5
ethanol						<20		<20
EtBE						<10		<10
TBA						<10		<10
Nitrate		800						
Sulfate		6000						
Ferrous Iron		NS						

MW-18D	08/21/00	8/20/2002	9/25/2003	4/19/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	no	BDL	<5	<5	18	<5	<5	<5
Toluene	well	BDL	<5	<5	5.2	<5	<5	<5
Ethylbenzene		BDL	<5	<5	2.7	<5	<5	<5
Xylene		BDL	<15	<15	12	<15	<15	<15
Naphthalene		BDL	<5	<5	<5	<5	<5	5.1
MtBE		BDL	<5	<5	<5	<5	<5	<5
EDB		BDL	<0.02		0.04		<0.02	<0.02
Lead		BDL	47					
1,2 DCA					<5			<5
TAME						<10		<10
TAA						<10		<10
EtBA						<10		<10
TBF						<20		<20
DIPE						<5		<5
ethanol						<20		<20
EtBE						<10		<10
TBA						<10		<10
Nitrate		300						
Sulfate		10000						
Ferrous Iron		NS						

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MW-19	08/21/00	8/20/2002	9/25/2003	4/19/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	no	no	no	no	no	no	no	no
Toluene	well	well	well	well	well	well	well	well
Ethylbenzene								
Xylene								
Naphthalene								
MtBE								
EDB								
Lead								
1,2 DCA								
TAME								
TAA								
EtBA								
TBF								
DIPE								
ethanol								
EtBE								
TBA								
Nitrate								
Sulfate								
Ferrous Iron								

8/8/2008 0.39'
8/18/2008 0.33'

SW-1	08/21/00	8/20/2002	9/25/2003	4/19/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	not	BDL	not	not	3.7	<5	<5	<5
Toluene	sampled	BDL	sampled	sampled	<5	<5	<5	<5
Ethylbenzene		BDL			<5	<5	<5	<5
Xylene		BDL			<15	<15	<15	<15
Naphthalene		BDL			<5	<5	<5	<5
MtBE		BDL			<5	<5	<5	<5
EDB		BDL			<0.02		<0.02	<0.02
Lead		BDL						
1,2 DCA					<5			<5
TAME						<10		<10
TAA						<10		<10
EtBA						<10		<10
TBF						<20		<20
DIPE						<5		<5
ethanol						<20		<20
EtBE						<10		<10
TBA						<10		<10
Nitrate		NS						
Sulfate		NS						
Ferrous Iron		NS						

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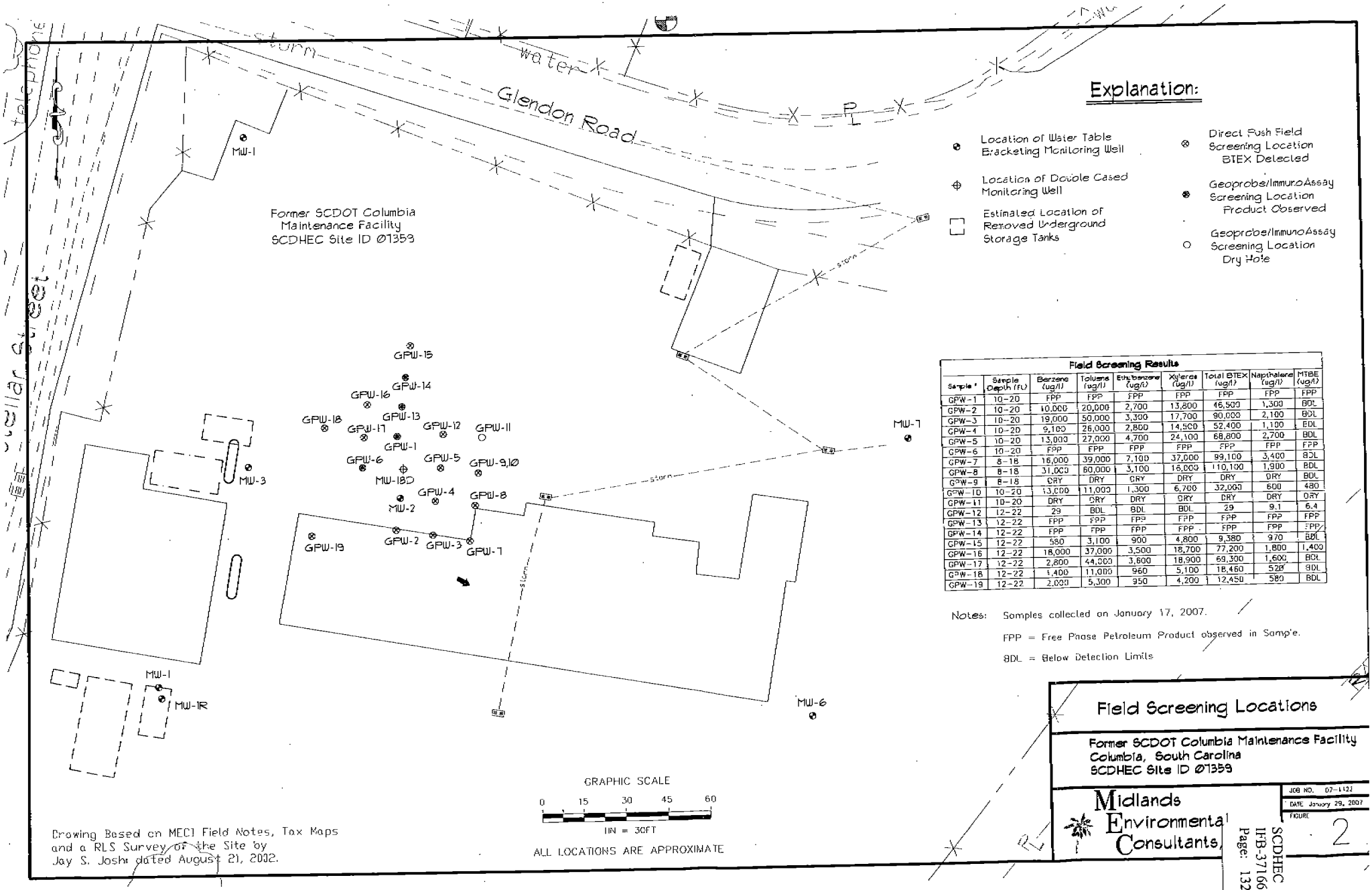
SW-2	08/21/00	8/20/2002	9/25/2003	4/19/2004	1/25/2005	7/27/2005	10/19/2005	7/10/2006
Benzene	not	BDL	not	not	<5	<5	<5	<5
Toluene	sampled	BDL	sampled	sampled	<5	<5	<5	<5
Ethylbenzene		BDL			<5	<5	<5	<5
Xylene		BDL			<15	<15	<15	<15
Naphthalene		BDL			<5	<5	<5	<5
MtBE		BDL			<5	<5	<5	<5
EDB		BDL			<0.02		<0.02	<0.02
Lead		BDL						
1,2 DCA					<5			<5
TAME						<10		<10
TAA						13		10
EtBA						<10		<10
TBF						<20		<20
DIPE						<5		<5
ethanol						<20		<20
EtBE						<10		<10
TBA						<10		<10
Nitrate		NS						
Sulfate		NS						
Ferrous Iron		NS						

BDL- Below Detection Limit
NS- Not Sampled

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
COLUMBIA MAINTENANCE
COLUMBIA, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1122
SCDHEC ID NUMBER 07359

Well Number	Sample Date	Depth	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	Naphthalene (µg/l)
GPW-1	1/17/2007	10-20	**Product**	**Product**	**Product**	**Product**	**Product**	**Product**	**Product**
GPW-2	1/17/2007	10-20	**10,000**	**20,000**	**2,700**	**13,800**	**46,500**	BDL	**1,300**
GPW-3	1/17/2007	10-20	**19,000**	**50,000**	**3,300**	**17,700**	**90,000**	BDL	**2,100**
GPW-4	1/17/2007	10-20	**9,100**	**26,000**	**2,800**	**14,500**	**52,400**	BDL	**1,100**
GPW-5	1/17/2007	10-20	**13,000**	**27,000**	**4,700**	**24,100**	**68,800**	BDL	**2,700**
GPW-6	1/17/2007	10-20	**Product**	**Product**	**Product**	**Product**	**Product**	**Product**	**Product**
GPW-7	1/17/2007	8-18	**16,000**	**39,000**	**7,100**	**37,000**	**99,100**	BDL	**3,400**
GPW-8	1/17/2007	8-18	**31,000**	**60,000**	**3,100**	**16,000**	**110,100**	BDL	**1,900**
GPW-9	1/17/2007	8-18	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-10	1/17/2007	10-20	**13,000**	**11,000**	**1,300**	**6,700**	**32,000**	**480**	**600**
GPW-11	1/17/2007	10-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-12	1/17/2007	10-20	**29.0**	BDL	BDL	BDL	**29.0**	**6.4**	**9.1**
GPW-13	1/17/2007	12-22	**Product**	**Product**	**Product**	**Product**	**Product**	**Product**	**Product**
GPW-14	1/17/2007	12-22	**Product**	**Product**	**Product**	**Product**	**Product**	**Product**	**Product**
GPW-15	1/17/2007	12-22	**580**	**3,100**	**900**	**4,800**	**9,380**	BDL	**970**
GPW-16	1/17/2007	12-22	**18,000**	**37,000**	**3,500**	**18,700**	**77,200**	**1,400**	**1,800**
GPW-17	1/17/2007	12-22	**2,800**	**44,000**	**3,600**	**18,900**	**69,300**	BDL	**1,600**
GPW-18	1/17/2007	12-22	**1,400**	**11,000**	**960**	**5,100**	**18,460**	BDL	**520**
GPW-19	1/17/2007	12-22	**2,000**	**5,300**	**950**	**4,200**	**12,450**	BDL	**580**

Notes:
1. BDL = Below Practical Quantitative Limits
2. µg/l = micrograms per liter
3. MTBE = Methyl-Tertiary-Butyl Ether
4. Product = Free Phase Product Detected



Field Screening Results

Sample #	Sample Depth (FL)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)
GPW-1	10-20	FPP	FPP	FPP	FPP	FPP	FPP	FPP
GPW-2	10-20	10,000	20,000	2,700	13,800	46,500	1,300	BDL
GPW-3	10-20	19,000	50,000	3,300	17,700	90,000	2,100	BDL
GPW-4	10-20	9,100	26,000	2,800	14,500	52,400	1,100	BDL
GPW-5	10-20	13,000	27,000	4,700	24,100	68,800	2,700	BDL
GPW-6	10-20	FPP	FPP	FPP	FPP	FPP	FPP	FPP
GPW-7	8-18	16,000	39,000	7,100	37,000	99,100	3,400	BDL
GPW-8	8-18	31,000	60,000	3,100	16,000	110,100	1,900	BDL
GPW-9	8-18	DRY	DRY	DRY	DRY	DRY	DRY	BDL
GPW-10	10-20	13,000	11,000	1,300	6,700	32,000	600	480
GPW-11	10-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-12	12-22	29	BDL	BDL	BDL	29	9.1	6.4
GPW-13	12-22	FPP	FPP	FPP	FPP	FPP	FPP	FPP
GPW-14	12-22	FPP	FPP	FPP	FPP	FPP	FPP	FPP
GPW-15	12-22	580	3,100	900	4,800	9,380	970	BDL
GPW-16	12-22	18,000	37,000	3,500	18,700	77,200	1,800	1,400
GPW-17	12-22	2,800	44,000	3,600	18,900	69,300	1,600	BDL
GPW-18	12-22	1,400	11,000	960	5,100	18,460	520	BDL
GPW-19	12-22	2,000	5,300	950	4,200	12,450	580	BDL

Notes: Samples collected on January 17, 2007.

FPP = Free Phase Petroleum Product observed in Sample.

BDL = Below Detection Limits

Field Screening Locations

Former SCDOT Columbia Maintenance Facility
Columbia, South Carolina
SCDHEC Site ID 01359

Midlands Environmental Consultants, LLC

JOB NO. 07-1122
DATE January 29, 2007
FIGURE 2

SCDHEC
IFB-37166-11/5/09-EMW
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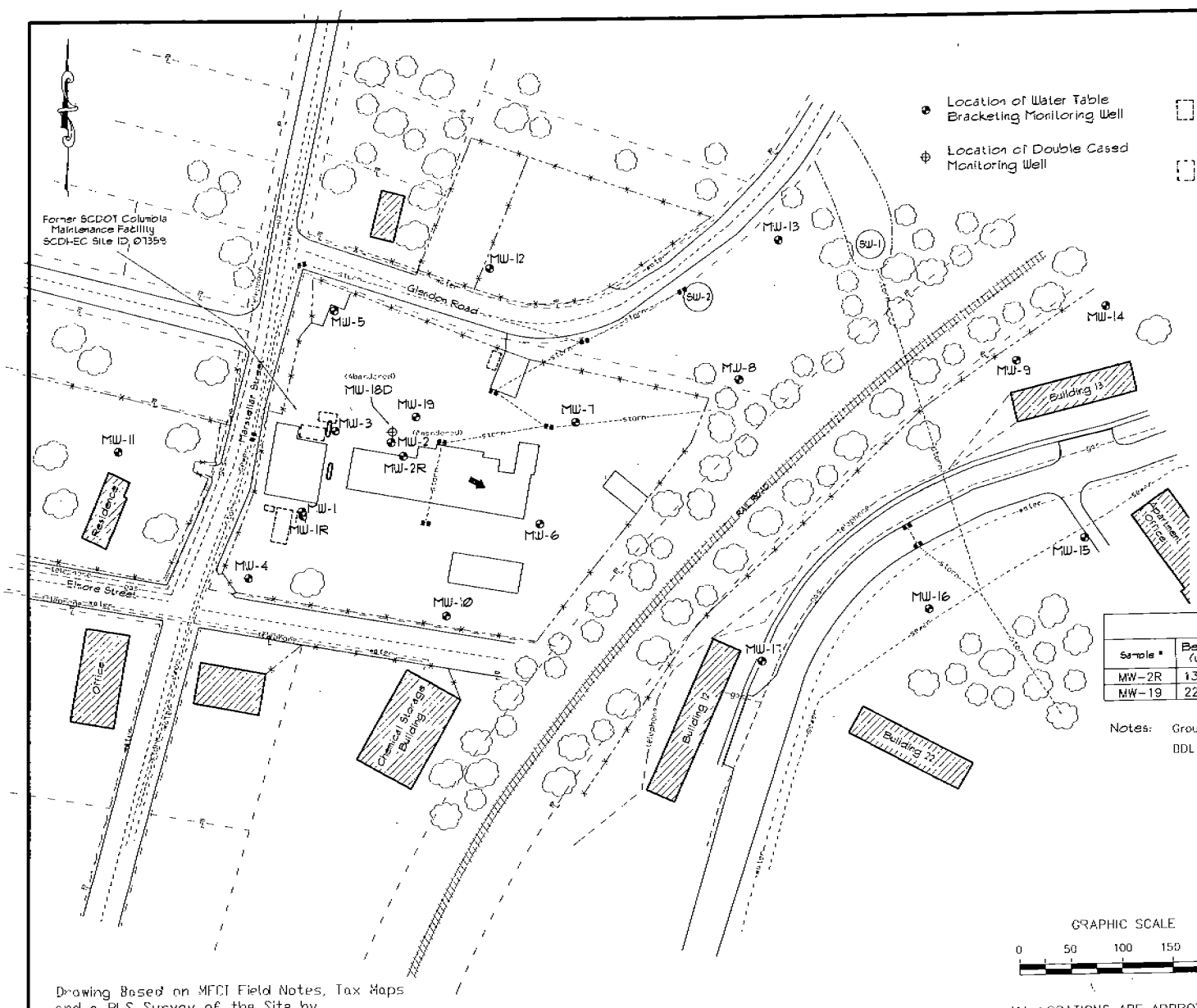

Explanation:

Drawing Based on MFCI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated August 21, 2002.

Groundwater Elevation Data

Well #	Depth to Water (feet)	Well Head Elevation	Groundwater Elevation
MW-2R	14.71	246.80	232.09
MW-19	15.09	246.81	231.72

Notes: Depth to groundwater measured on May 6, 2008.
Site Datum Based on Assumed Spot Elevation.

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)
MW-2R	13,600	32,300	2,580	14,500	62,980	BDL	BDL
MW-19	22,700	34,200	2,530	14,000	73,430	BDL	BDL

Notes: Groundwater samples collected on May 6, 2008.
BDL = Below Detection Limits

Site Features

Former SCDOT Columbia Maintenance Facility
Columbia, South Carolina
SCDHEC Site ID #1359

Midlands Environmental Consultants

JOB NO. 08-1627
DATE May 14, 2008
FIGURE 2

SCDHEC
IFB-3716G-11/5/09-EMW
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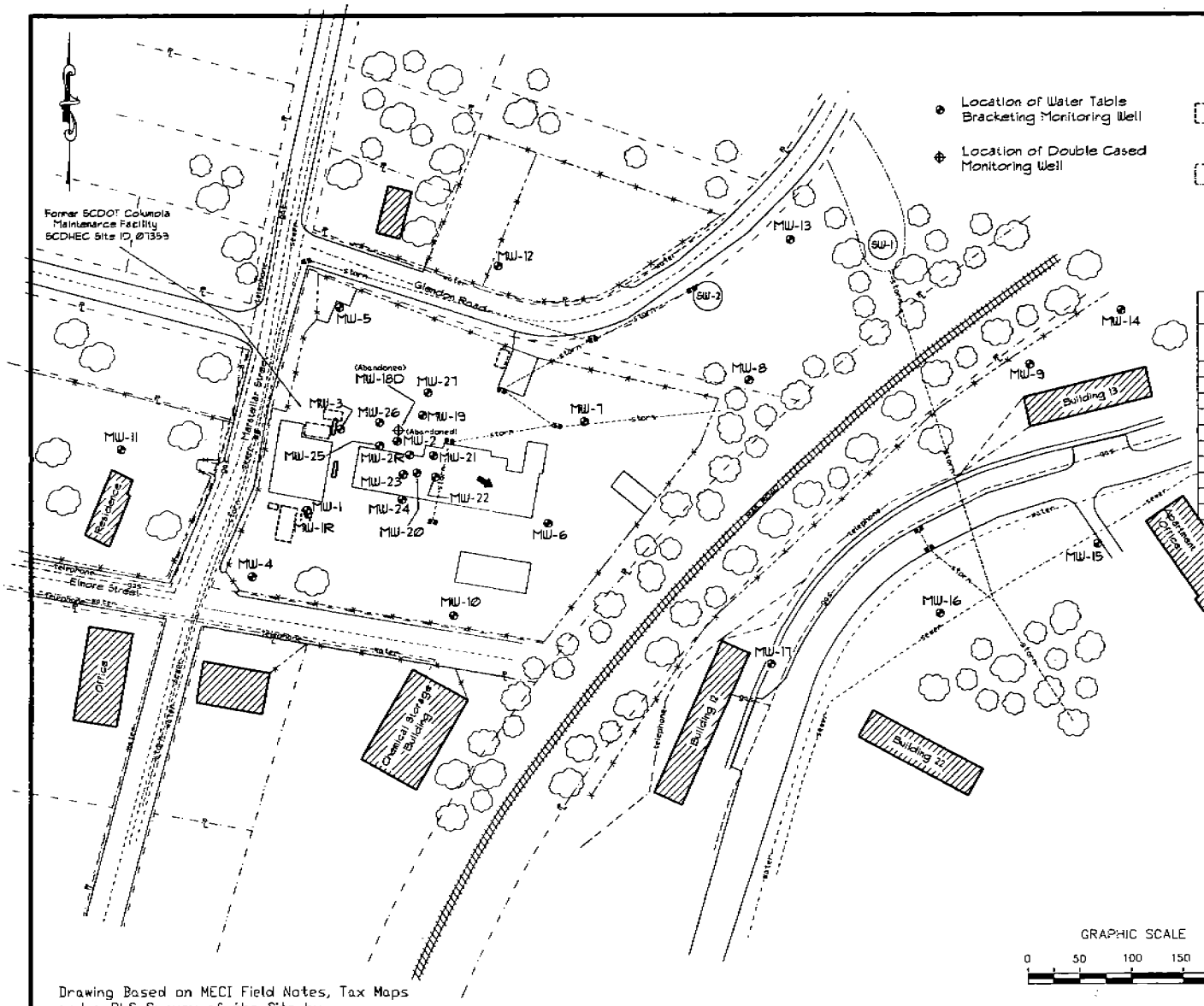

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Abandoned Underground Storage Tanks
- Property Line
- Buried Gas Line
- Buried Water Line
- Buried Sewer
- Under Ground Telephone
- Fence
- Storm Sewer

Groundwater Elevation Data

Well #	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well Head Elevation	Groundwater Elevation
MW-2R	---	14.20	---	246.80	232.60
MW-19	14.37	14.46	0.09	246.81	232.43
MW-20	---	14.26	---	246.46	232.20
MW-21	---	14.84	---	246.87	232.03
MW-22	15.08	15.16	0.08	247.13	232.10
MW-23	---	14.23	---	247.14	232.91
MW-24	15.39	15.63	0.24	246.89	231.46
MW-25	---	14.44	---	246.96	232.52
MW-26	15.93	16.13	0.20	247.91	231.92
MW-27	---	15.01	---	247.98	232.91

Notes: Depth to groundwater measured on December 12 & 17, 2008.

Site Datum Based on Assumed Spot Elevation.

Groundwater elevation for MW-22, MW-24, and MW-26 corrected for the presence of Free Phase Petroleum Product using a specific gravity for fuel of 0.85.

GRAPHIC SCALE

0 50 100 150 200

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated August 21, 2002.

Site Features

Former SCDOT Columbia Maintenance Facility
Columbia, South Carolina
SCDHEC Site ID #1359

Midlands Environmental Consultants

JOB NO. 08-2001
DATE December 17, 2008
FIGURE 2

SCDHEC
IFB-37166-11/5/09-EMW
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Geo Solutions Ltd.
P.O. Box 37698
Raleigh, North Carolina 27627
(919) 349-6237 (Phone)
(919) 233-9454 (Fax)

May 5, 2009

Lyle H. Lee
Environmental Project Manager
GS2 Engineering & Environmental Consultants
241 Business Park Boulevard
Columbia, South Carolina 29203

Dear Mr. Lee:

Geo Solutions Limited, Inc. (Geo Solutions) is pleased to submit this report to GS2 Engineering & Environmental Consultants (GS2) for a geophysical survey in support of a continuing environmental cleanup program at former Columbia Maintenance facility, UST# 07359 located at 3736 Marsteller Drive, Columbia, SC

Background

GS2 has been contracted to perform environmental services at a contaminated soil and groundwater site. The site is a former Columbia Maintenance facility which performed various maintenance operations on vehicles, motors, and other equipment. The facility also provided fueling services for various motors and vehicles.
GS2 is interested in locating subsurface conditions that may influence the design of clean-up at the site.
Geo Solutions was hired to provide geophysical services to evaluate the presence or absence of underground storage tanks, and if possible, identify the horizontal extent of affected soil and groundwater.

Investigation

Geo Solutions completed a two-phase geophysical survey of the site:

1. A Multifrequency Electromagnetic Survey (EM) was conducted along north-south profile lines across portions of the property lying within a chain-linked fence (Figure 2). The EM profile lines were spaced on a5-ft interval and samples were collected approximately every 1-ft along each of the profile lines. During the completion of this geophysical survey field notes and photographs were recorded indicating the location of any surface features, such as manholes, debris, and surface conditions, which may assist in the identification of any observed geophysical anomalies.

2. Ground-penetrating radar (GPR) profiles were completed across portions of the property (Figure 5). The purpose of the GPR investigation was to locate the former USTs and to evaluate the quality of site wide data that could be obtained should additional work be required.

Multifrequency Electromagnetic Survey

Geo Solutions utilized a GEM-2 multifrequency electromagnetic profiler (EM) to obtain information concerning the electromagnetic properties of the material composing the upper 20 ft of sites soil. EM surveys have been shown to be very effective at evaluating the presence of electrically conductive and non-conductive material. Geo Solutions performed the EM survey at four electromagnetic frequencies (1470 Hz, 5130 Hz, 9990 Hz and 19950 Hz). We reviewed the results from each of these Frequencies and found that the 19950 Hz showed the best response. As such, we have produced two figures that illustrate the 19950 Hz in-phase (metal detection) and quadrature (conductivity) mode results (Figures 3 and 4, respectively).

Ground-penetrating Radar (GPR)

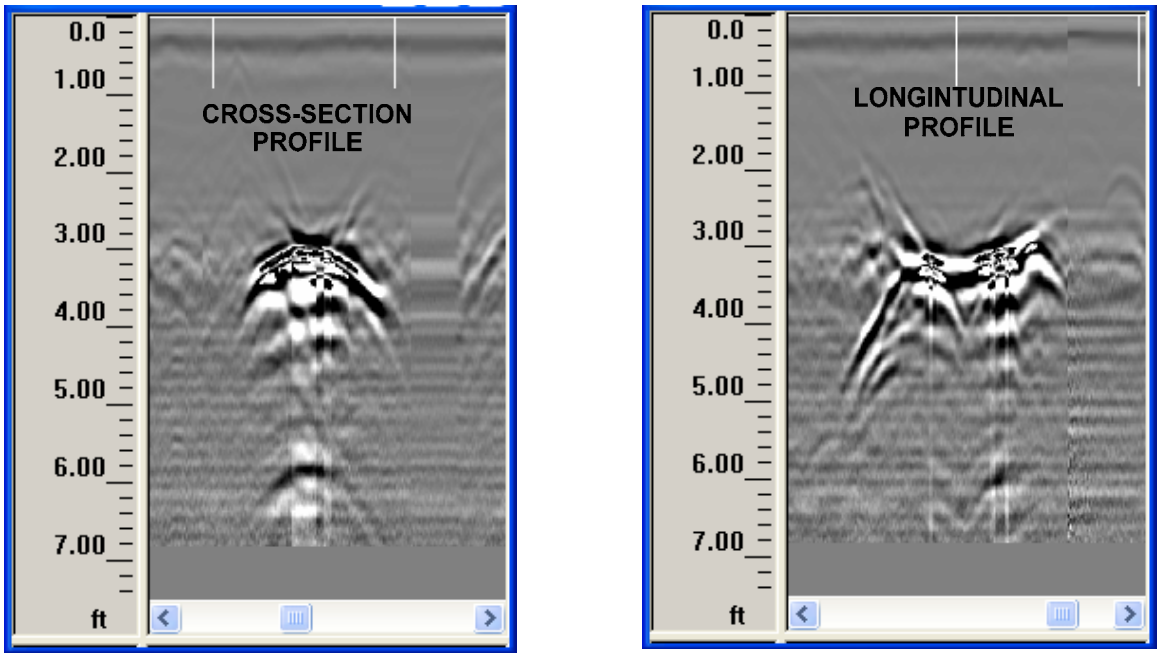
Geo Solutions utilized a GSSI Model 3000 GPR unit equipped with a 400 and 200 MHz antenna mounted on a three wheel cart. A limited GPR survey was performed across the west, central east portion of the site (Profiles 1, 2, 3, and 4 in Figures 5 and 6). In each case the depth of detection varied from 4 feet to approximately 10 feet in depth bls. Here Geo Solutions identified six prominent features (which have been identified in Figure 6) and include:

1. Numerous shallow utilities traversing the site.
2. Potential buried manholes and drain lines
3. Evidence that fuel hydrant lines leading from former and existing USTs are present, and
4. Evidence that at least one large UST remains in place (possibly closed in place).
5. Evidence of rock fabric structures in the subsurface. These structures are represented by inclined GPR reflector surfaces to a depth of more than 10 feet.
6. Areas of shallow fill material (non-metallic) probably placed during the construction of the facility.

Results

The following is a summary of our results:

- Based on the results of the EM and GPR survey Geo Solutions has located the position of a suspected UST (approximately 8ft in diameter) the length of the UST could not be determined because of limited access to the long axis of the tank but probably exceeds 10 feet in length. Below is a cross and longitudinal section GRP profile over the suspected UST.



GPR PROFILES ACROSS SUSPECTED UST

- The EM survey data was also reviewed for the presence of other buried material. Here we did not find any widespread areas that may represent buried metal debris or drums. However we did identify a single EM anomaly that appears to be buried approximately 1 ft deep and was about 2-ft in diameter (this appeared to be a drain or manhole cover). Leading away (east) from this feature was a single pipe of unknown diameter (see Figure 3, located north and west of Monitoring Well 10).
- Based largely on the EM survey, Geo Solutions identified a number of suspected underground utilities (noted as black dashed lines in Figures 3 and 4) traversing the site.
- Additionally, Geo Solutions noted in Figure 4, and summarized in Figure 7. Here, Geo Solutions has postulated the extent of soil and shallow groundwater that shows evidence of change conductivity. Changes in the soil and groundwater conductivity may reflect the extent of various types of contamination, and my represent the reaction hallow surrounding the contaminant plume.

Recommendations

We recommend that the findings of this report be reviewed with the results of a new environmental drilling program and be used to identify potential new geophysical surveys, if any.

Geo Solutions is proud to have been a part of this environmental assessment. Please give me a call should you have any questions concerning the above.

Very truly yours,

GEO SOLUTIONS LIMITED, INC.

Ronald A. Crowson, Geophysicist

Figures 1 through 7 attached

APPROXIMATE LOCATION OF MONITORING WELL

SITE MAP - EXTENT OF GEOPHYSICAL SURVEY

COLUMBIA MAINTENANCE FACILITY

APRIL 3, 2009

Geo Solutions Ltd.

FIGURE 1

APPROXIMATE LOCATION OF MONITORING WELL

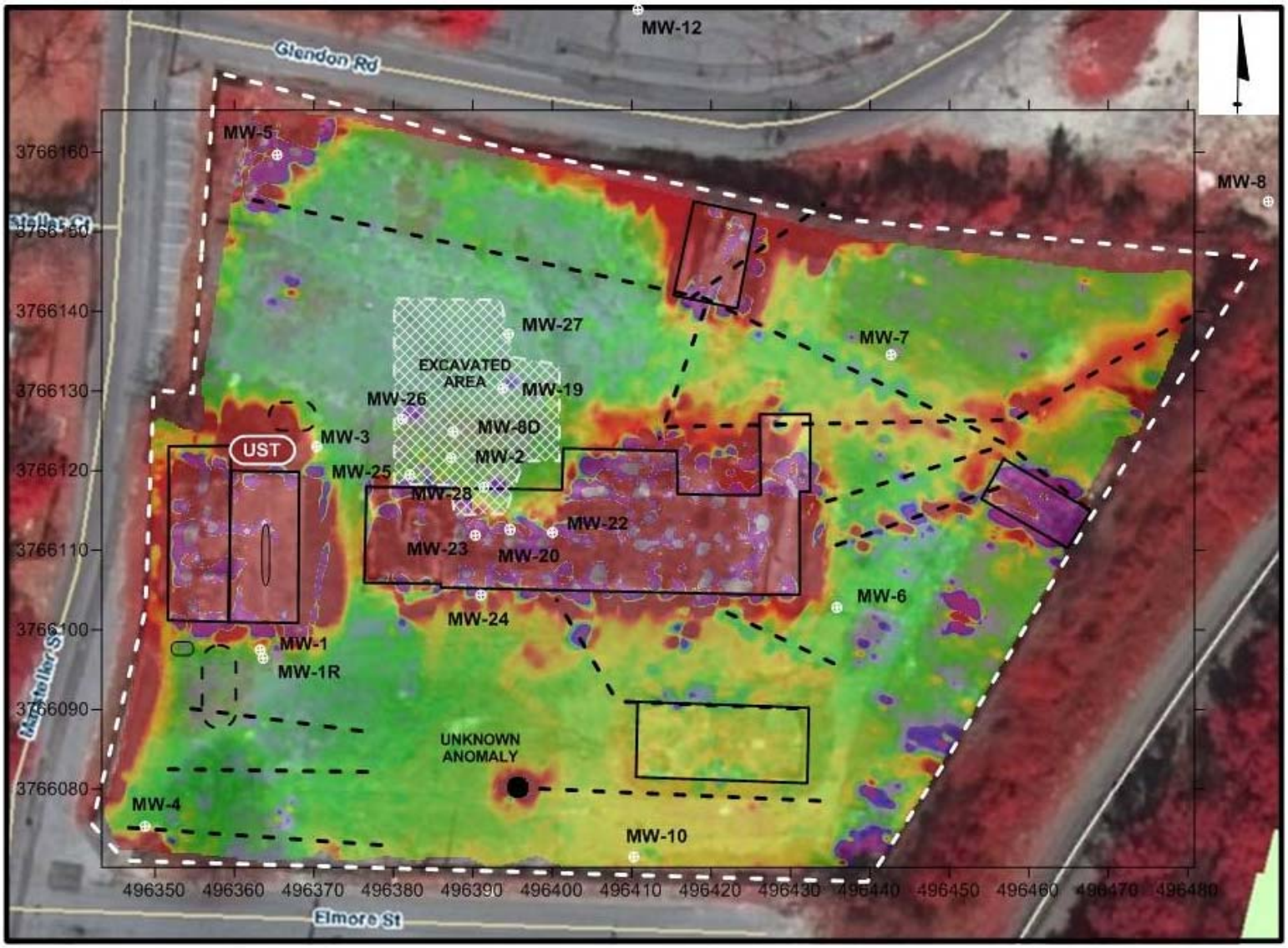
EM GEOPHYSICAL SURVEY
LOCATION OF SURVEY LINES

COLUMBIA MAINTENANCE FACILITY

APRIL 3, 2009

Geo Solutions Ltd.

FIGURE 2



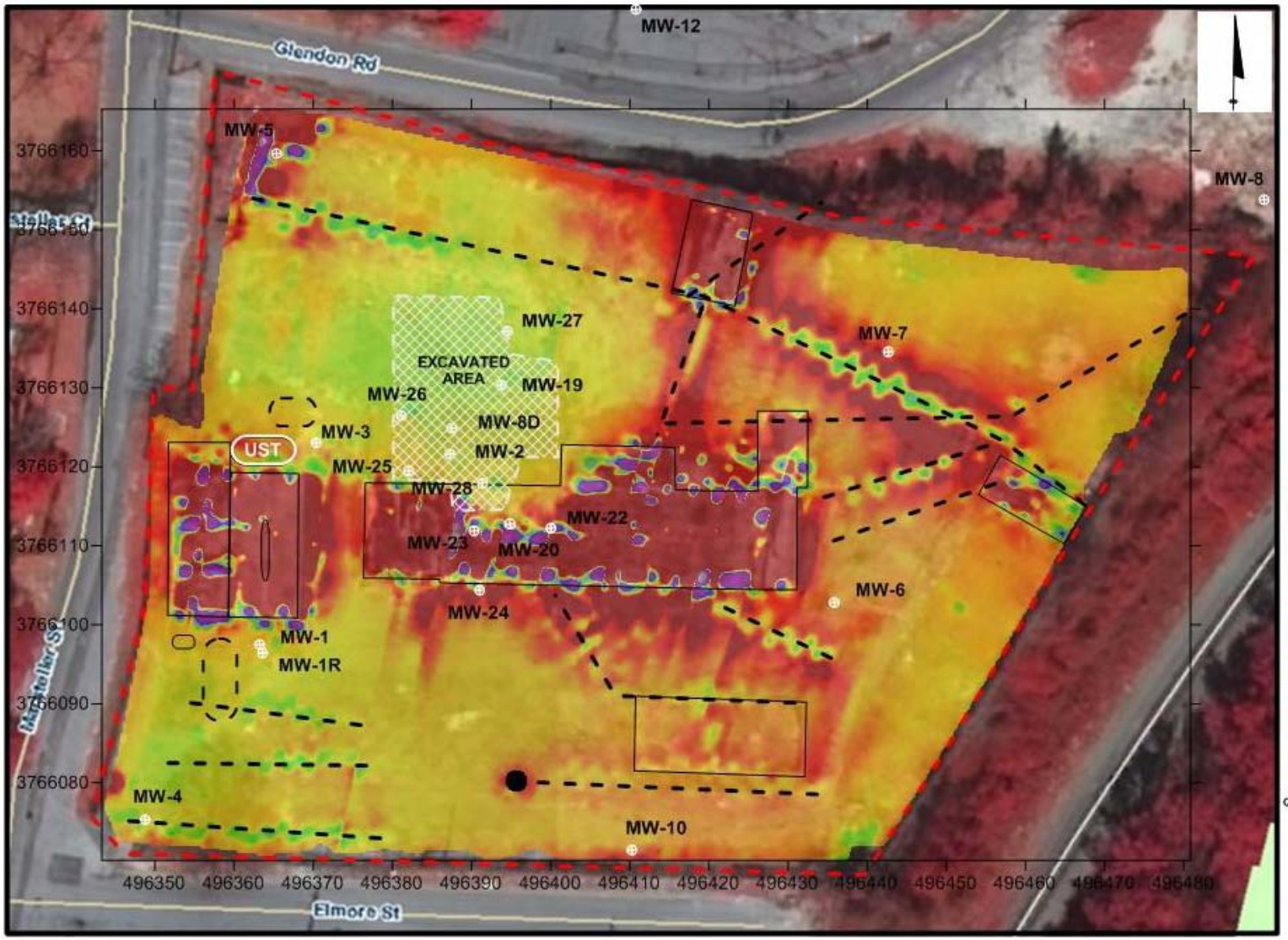
APPROXIMATE LOCATION OF MONITORING WELL

EM GEOPHYSICAL SURVEY
19950 Hz IN-PHASE RESULTS (METAL DETECTION MODE)
COLUMBIA MAINTENANCE FACILITY

APRIL 3, 2009

Geo Solutions Ltd.

FIGURE 3



APPROXIMATE LOCATION OF MONITORING WELL

EM GEOPHYSICAL SURVEY
19950 Hz QUADRATURE PHASE RESULTS (CONDUCTIVITY MODE)
COLUMBIA MAINTENANCE FACILITY

APRIL 3, 2009

Geo Solutions Ltd.

FIGURE 4

APPROXIMATE LOCATION OF MONITORING WELL

LOCATION OF GPR PROFILE

EXTENT OF GROUND-PENETRATING RADAR GEOPHYSICAL SURVEY

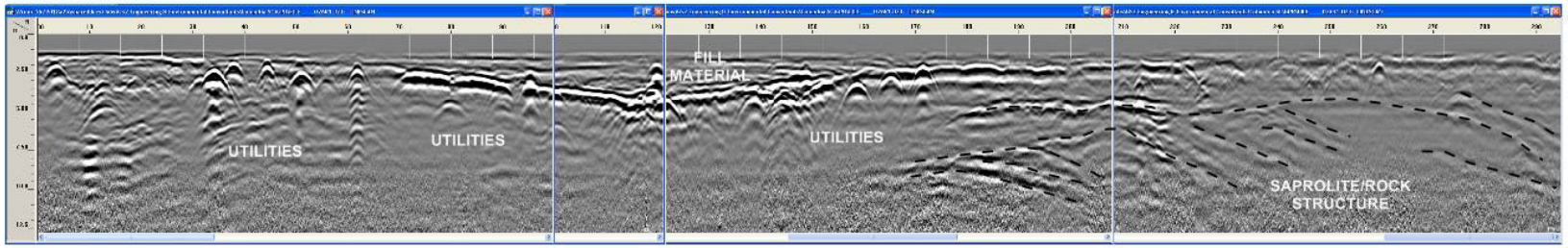
COLUMBIA MAINTENANCE FACILITY

APRIL 3, 2009

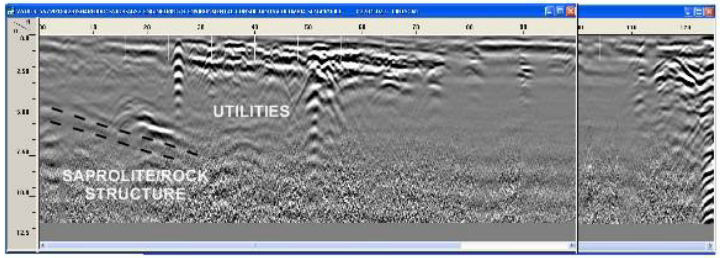
Geo Solutions Ltd.

FIGURE 5

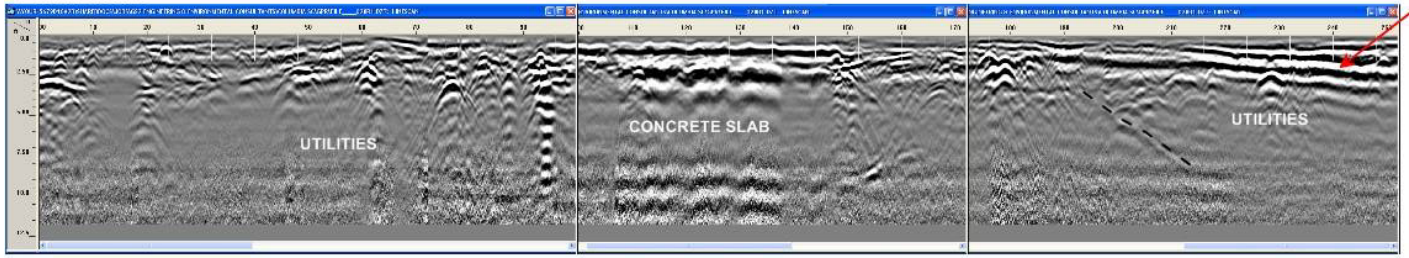
GPR PROFILE 1



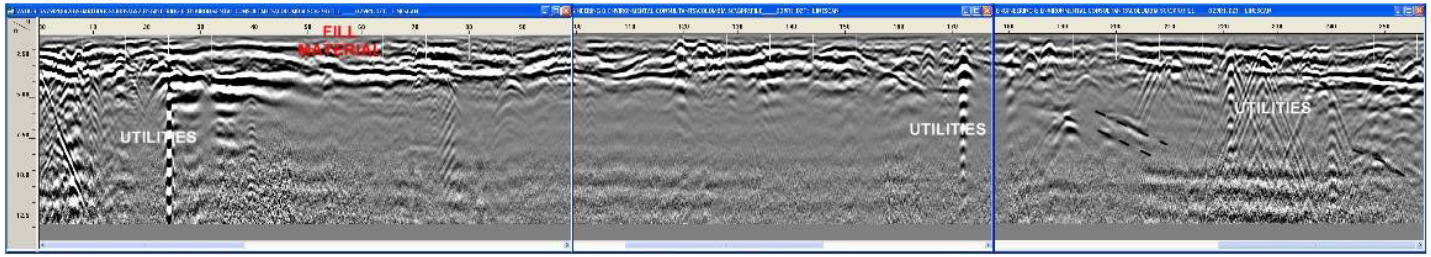
GPR PROFILE 2



GPR PROFILE 3



GPR PROFILE 4



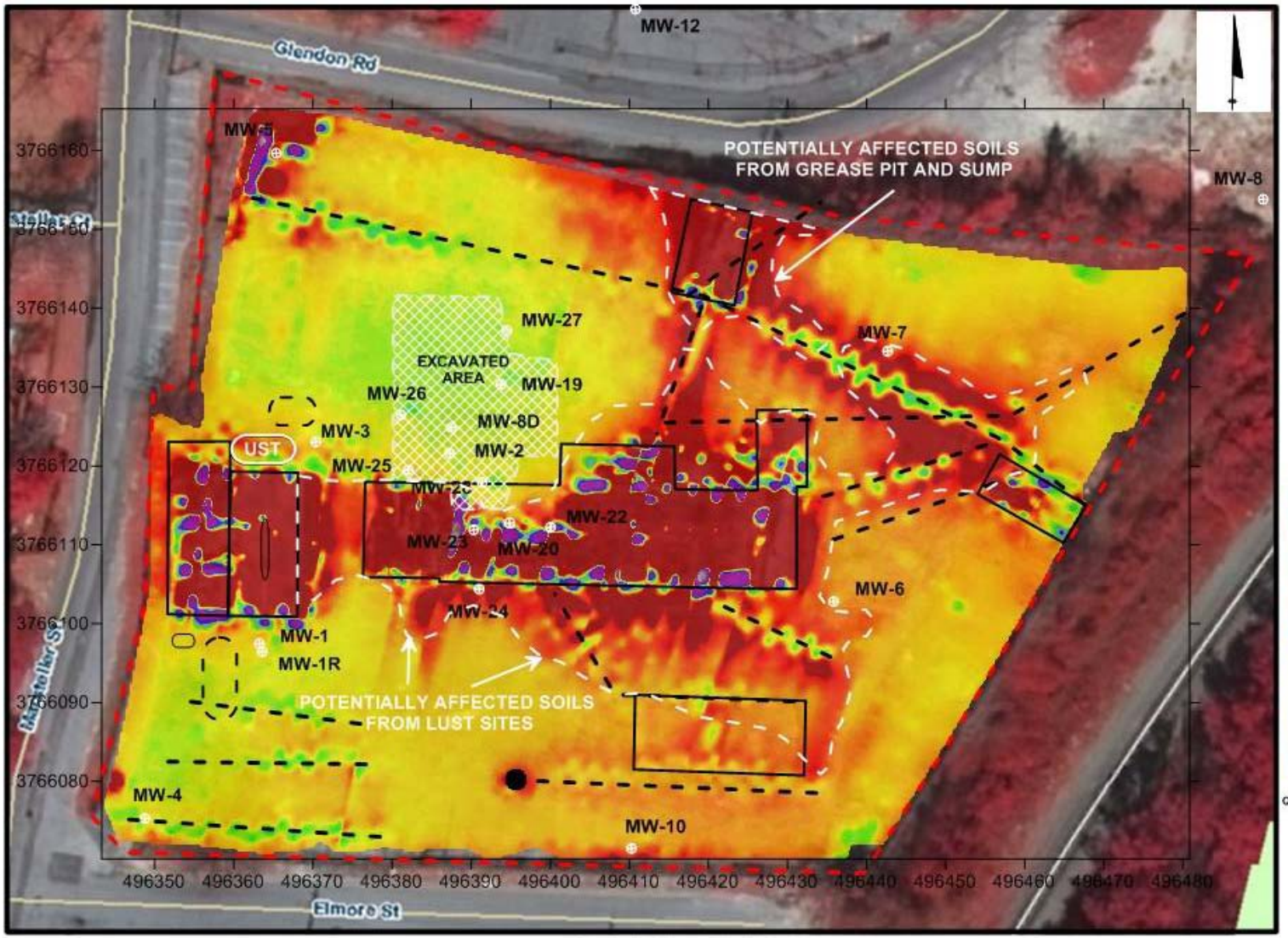
COLUMBIA MAINTENANCE FACILITY

200 MHz GROUND-PENETRATING RADAR

SCALE IN FEET

APRIL 3, 2009

Geo Solutions Ltd.



APPROXIMATE LOCATION OF MONITORING WELL

EM GEOPHYSICAL SURVEY
ESTIMATED EXTENT OF AFFECTED SOIL
BASED ON APPARENT SOIL CONDUCTIVITY
COLUMBIA MAINTENANCE FACILITY

APRIL 3, 2009

Geo Solutions Ltd.

FIGURE 7